VOL. LXXXI PART TEN

JOURNAL OF THE ROYAL HORTICULTURAL SOCIETY

OCTOBER 1956

PAGE

The Secretary's Page 425
Notes from Wisley. By J. B. PATON 427
Invited Trials, 1957–8, Wisley 431
Spring Flowers in South Africa. By Sir FREDERICK STERN, O.B.E., M.C., F.L.S., V.M.H. *Illustrated* . . . 432
Some Plant-Hunting Experiences. By COLLINGWOOD INGRAM, F.L.S., V.M.H. *Illustrated* 438
Pests and Diseases: Fruit Spraying Calendar . . . 449
Plants and Problems—XXVIII 452

NOTES FROM FELLOWS:
Endymion (*Scilla*) *hispanicus*. By A. T. JOHNSON . 454

WISLEY TRIALS, 1956:
Delphiniums 455
Heucheras 456
Perennial Lupins 456
Pyrethrums 456
Rhododendrons 457
Plants to which Awards have been made in 1956 . . 458
Camellias 462
Rhododendrons 463
Orchids 465
Book Notes 466

★

VINCENT SQUARE, LONDON, S.W.1

WASHING DAY'S BUT ONCE A YEAR

says Bob Green, our gardening expert

1. Tomato crop ended? Now's your chance to clean the greenhouse, before Chrysanths go in!

2. *Move out any plants you want to save*, then fumigate the house with a Jeyes' Sulphur Candle. 1 lb. size 1/6d. is sufficient for 1,000 cubic feet.

3. Add four tablespoonsful of Jeyes' Fluid to two gallons of water, and start your spraying from the top.

4. Spray forcibly between the glass overlaps, as these harbour dirt and algae. Next spray the sides.

5. Now scrub the benching and all woodwork. Use plenty of solution throughout, and spray well into crevices where pests lurk.

6. A Jeyes' clean-up *now* saves you a lot of disappointment from pests and plant disease later on.

Quart tins 5/- Gallon tins 15/- and in bottles—at hardware stores, horticultural suppliers, chemists and grocers.

FREE! *Write for free copy of "Jeyes' Fluid in the Garden"*

JEYES' FLUID

THE BEST DISINFECTANT ON EARTH

JEYES' (DEPT. BNG 13) MILLBROOK · MANOR ROAD · [illegible] · ESSEX

BY APPOINTMENT TO HER MAJESTY THE QUEEN
SEEDSMEN

BULBS
for
BOWL and GARDEN CULTURE

'BULBS and LAWNS' CATALOGUE
(FREE ON REQUEST)

Bulbs for forcing and Garden Culture, Sweet Peas and Lawn Grass Seeds, for Autumn sowing, Hardy Plants, Fruit Trees. Garden Tools and Horticultural Sundries, etc.

Carters TESTED SEEDS LTD

134 Regent Street, W.1
129 High Holborn, W.C.1
53a Queen Victoria Street, E.C.4
Houston Road, S.E.23

RAYNES PARK, LONDON, S.W.20

Modern Rhododendrons

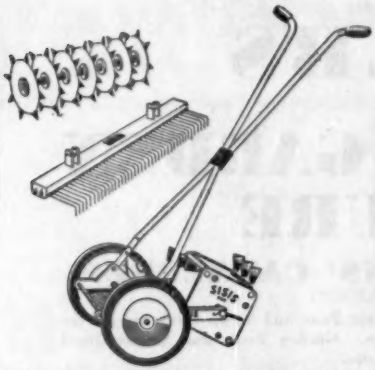
E. H. M. Cox and P. A. Cox

THE LISTENER says: 'The Messrs. Cox, father and son, have followed the botanical classification of rhododendrons into series; for each of the 43 series they outline the general characteristics, and then list and describe the most valuable garden plants, and the ease or difficulty they have experienced in cultivating them over the last 35 years in their fairly cold garden in Perth. Excellent line drawings by Miss Stones illustrate a typical plant of each series, save six which are in colour. There are most useful chapters on the cultivation, propagation and diseases of the plant, and lists of recommendations . . . There can be few gardeners who will not pick up some tips from this pleasantly written book.'

4 plates in colour *23 line drawings* *208 pages* 21s

NELSON 36 Park Street London W1

"SISIS" HAND LAWNMAN



The "SISIS" UNIVERSAL HAND FRAME and implements for Piercing, Raking, Brushing and Rolling. All interchangeable without tools.

W. HARGREAVES & CO. LTD
CHEADLE, CHESHIRE. CAT. 4252

The easy way to success with house plants

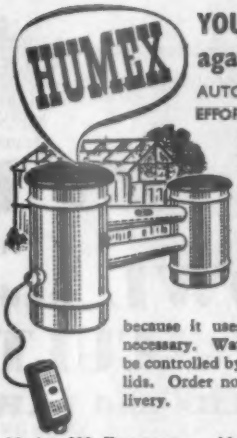
Luxigro tablet fertilizer is the perfect tonic for all indoor plants. It promotes strong, healthy growth and combines the carefully balanced ingredients necessary to healthy plant life. Luxigro No. 1 for leaf-bearing plants, and Luxigro No. 2 for flower-bearing plants. (*It is important that the correct type of tablet be used.*)

Recommended by Rochfords, the house-plant specialists.

Luxigro TABLET FERTILIZER
A CHEMICO PRODUCT

FREE BOOKLET

Send stamped addressed envelope for your copy to:
THE COUNTY CHEMICAL CO. LTD. (Dept. H.2.),
SHIRLEY, SOLIHULL, WARWICKSHIRE



YOUR watchword against *FROST*

AUTOMATIC...CLEAN...
EFFORTLESS...ECONOMICAL

Get a HUMEX electric heater and you're safe against frost. HUMEX watches the weather for you... switches itself on when needed — off again when correct temperature is obtained. HUMEX saves money because it uses current only when necessary. Water filled, humidity can be controlled by adjusting ventilating lids. Order now for immediate delivery.

Model 800 For greenhouses up to 600 cubic ft. (11'×8'). Complete with Thermostat and 4 yds. cable.
Galv. Iron £7. 19. 6.
Copper £12. 12. 0.

Model 1250 For greenhouses up to 1,000 cubic ft. (16'×9'). Complete with Thermostat and 4 yds. cable.
Galv. Iron £12. 5. 0.
Copper £18. 10. 0.

POST THIS COUPON NOW!

Please send me, without obligation, your FREE brochure on Automatic Greenhouse Heating.

NAME _____
ADDRESS _____

ROBERTS ELECTRICAL COMPANY LTD. (DEPT IRH)
11/13 *High Road, Byfleet, Surrey.* *Byfleet* 3928

THE "PLUIE" GARDEN FRAMES

To Poultmure Ltd.

I would like to say how extremely successful I have been with the use of your Frames.
As you know I have a series of Pluie Major, Pluie Minor and Sonny Frames and have been so successful with our broad beans, dwarf beans, carrots, peas, lettuce, beetroot, runner beans and strawberries.
I think I can quite justly claim that we have had the earliest crop in the last two years of any of our friends in this area.
I shall certainly be adding some of your newer sectional Frame-houses, especially the double-decker that I saw at the Flower Show.
There is no doubt that with your frames and judicious use of Poultmure, one cannot fail to get the best of crops.

Yours E. T. Burt,
Chailey, Sussex.

PLUIE MAJOR Size 4 ft. 9 in. long, 4 ft. wide, 20 in. high centre. Price complete £9 10 0.

PLUIE MINOR Size 41 in. long, 38 in. wide, 15½ in. high centre. Price complete £6 0 0.

POULTMURE The finest manure for all crops. 112 lbs. 42/-. 56 lbs. 24/-. 28 lbs. 13/-.

POULTMURE LTD. (DEPT. H.S.)
5 COLLEGE ROAD, HARROW, MIDDLESEX

EN-TOUT-CAS

EXPERTS IN THE DESIGN AND CONSTRUCTION OF ALL KINDS OF HARD COURTS AND SPORTS GROUNDS

HARD COURTS
Used for the British Hard Court Championships at Bournemouth and first-class tournaments throughout the country.

RUNNING TRACKS
Including White City, London and Manchester, Oxford University Athletic Club's ground, Iffley Road, Oxford, R.A.F. Halton, etc.

SQUASH COURTS
Sole makers of Carter's and En-Tout-Cas courts, which can now be economically and speedily constructed.

CRICKET PITCHES
"BITUTURF" Practice Pitches supplied to County Cricket Clubs, Corporations, Business Clubs, Colleges and Universities, etc.

SWIMMING POOLS
Designed and made for Schools, Men's Clubs and many private purchasers.

PRICE LIST
Published annually (92 pp.) of all kinds of Grass Seeds, Fertilizers, Sports Ground Equipment and Accessories (please send for this).

Booklets, Layouts, Specifications and Estimates from:

THE EN-TOUT-CAS CO. LTD., SYSTON, Nr. LEICESTER

(Telephone: Syston 86163-4-5-6)

London Office: Harrods (4th Floor), Knightsbridge, S.W.1. (SLOane 8117-8)

M·A·N·G·A·N·E·S·E

AN ESSENTIAL PLANT NUTRIENT

Manganese deficiency in Valencia orange (California Agricultural Experiment Station). Reproduced by permission from 'Hunger Signs in Crops' published by the American Society of Agronomy and the National Fertiliser Association.

Manganese deficiency has been recorded in many varieties of citrus on a wide range of soil types. While the application of manganese compounds to the soil may be effective, foliage spraying is often the best protection.

Information and literature may be obtained from our Agricultural Department.

CHEMICAL & CARBON PRODUCTS LTD.
14F NEW BURLINGTON STREET, LONDON, W.1
Telephone: REGent 1931 (two lines) Cables: CHEMICARBO, LONDON

Est. 1765

Rely on Benjamin R. Cant's Roses for consistently beautiful blooms. Catalogue in full colour on request. Send 3d. for postage.

BENJAMIN R. CANT
& SONS LIMITED

THE OLD ROSE GARDENS
COLCHESTER, ESSEX

DRON-WAL Supreme SPRAYERS & SYRINGES

The "MASTER" PNEUMATIC SPRAYERS

For ALL your spraying needs!

Simple, Easy Action, Brass throughout. Takes all insecticides, with bend for underleaf spraying. Highly suitable for spraying hormones on Tomatoes or Seedlings in the greenhouse. See your Seedsman or Ironmonger.

Send for Illustrated List

The PHILIP B. WALDRON CO.,
Kings Road, Tyseley, BIRMINGHAM-11.

THE
Chiltern Tree Surgeons

•

Specialists in the preservation of mature and ornamental trees. Lopping and felling of dangerous trees.

•

27 QUEEN COURT
QUEEN SQUARE, W.C.1
TERMINUS 8394

—"CRAVEN"—
WINTER WASHES
AND
SPRAYING OUTFITS
OF ALL TYPES

FULL DETAILS FROM:—
W. J. CRAVEN & CO. LTD
PHONE 2631-2 EVESHAM

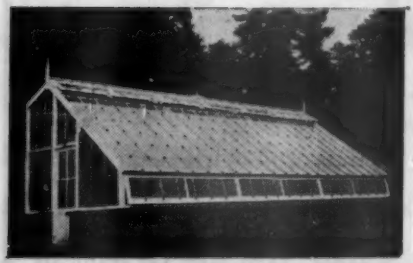
STUART BOOTHMAN

has specialised in ROCK GARDEN PLANTS for over twenty years. His illustrated catalogue gives cultural notes for each sort and guarantees to replace any that die within three months of planting.
Please ask for a copy.

NIGHTINGALE NURSERY,
MAIDENHEAD • BERKS.

STRAWSON

THE FINEST GREENHOUSES IN THE COUNTRY



Countless gardening experts all over the country are praising and recommending Strawson's Quality Timber-framed Greenhouses, associated with long life and perfection. Any type or size of Greenhouse or Frame can be supplied anywhere.

"A Personal Service"

Since our firm was founded in 1892 we have endeavoured to set a standard in Greenhouse building second to none. Enquiries should be addressed to Mr. R. F. Strawson, who will *personally* send estimates and full particulars of the famous Strawson range of Greenhouses, Frames, Greenhouse Heating, and other valuable information.

Mr. Strawson can also arrange personal Surveys o Inspection in any part of the country at short notice.

G. F. STRAWSON & SON
HORLEY · SURREY
Telephone: Horley 130

THE WORLD'S FIRST AND ONLY TCNB FUNGICIDAL SMOKE

Here is the Gardener's answer to Botrytis and Mildew on Chrysanthemums. FUMITE TCNB Fungicidal Smoke gives a simple, safe and speedy all-over treatment to your plants, and saves you time, labour, money and crops. This unique product, designed specially for this purpose, contains tetrachloronitrobenzene.

Fumite TCNB
keeps your chrysanthemums clean and healthy

FUMITE TCNB Fungicidal Smoke pellets Size 2 at 2/6 per tube of 4. For large houses Size 5 Generator, price 6/-

CHRYSANTH DOSAGE	PELLET SIZE 2	GENERATOR SIZE 5	TREATMENT
Serious Infection	400 cu. ft. per pellet	5,000 cu. ft.	2/3 weeks
Normal Infection	600 cu. ft. per pellet	7,500 cu. ft.	3 weeks
A preventive measure	800 cu. ft. per pellet	10,000 cu. ft.	1 month

British Patent Nos. 621732, 621894 and 651684. Application No. 18743/53—others pending

FUMITE DDT/LINDANE · FUMITE LINDANE · FUMITE AZOBENZENE

FUMITE SMOKE PESTICIDES

From Seedsmen, Ironmongers, Chemists and through all branches of BOOTS

In case of difficulty write to **WAECO LIMITED** (FUMITE Division)
120/2 VICTORIA STREET LONDON S.W.1. Telephone: Tate Gallery 9826

Est. 1765

Rely on Benjamin R. Cant's Roses for consistently beautiful blooms. Catalogue in full colour on request. Send 3d. for postage.

BENJAMIN R. CANT
& SONS LIMITED

THE OLD ROSE GARDENS
COLCHESTER, ESSEX

DRON-WAL *Supreme* SPRAYERS & SYRINGES

The **"MASTER"** PNEUMATIC SPRAYERS

For ALL your spraying needs!

Simple, Easy Action, Brass throughout. Takes all insecticides, with bend for underleaf spraying. Highly suitable for spraying hormones on Tomatoes or Seedlings in the greenhouse. *See your Seedsman or Ironmonger.*

Send for Illustrated List

The PHILIP B. WALDRON CO.,
Kings Road, Tyseley, BIRMINGHAM 11.

THE
Chiltern Tree Surgeons

Specialists in the preservation of mature and ornamental trees. Lopping and felling of dangerous trees.

27 QUEEN COURT
QUEEN SQUARE, W.C.1
TERMINUS 8394

—"CRAVEN"—

WINTER WASHES
AND
SPRAYING OUTFITS
OF ALL TYPES

FULL DETAILS FROM:—

W. J. CRAVEN & CO. LTD

PHONE 2631-2 **EVESHAM**

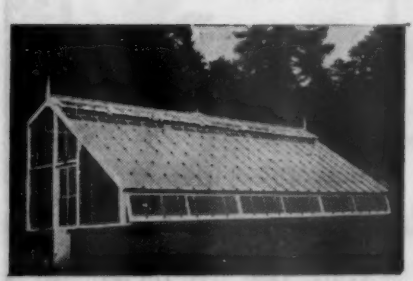
STUART BOOTHMAN

has specialised in
ROCK GARDEN PLANTS
for over twenty years.
His illustrated catalogue gives cultural notes for each sort and guarantees to replace any that die within three months of planting.
Please ask for a copy.

NIGHTINGALE NURSERY, MAIDENHEAD • BERKS.

STRAWSON

THE FINEST GREENHOUSES IN THE COUNTRY



Countless gardening experts all over the country are praising and recommending Strawson's Quality Timber-framed Greenhouses, associated with long life and perfection. Any type or size of Greenhouse or Frame can be supplied anywhere.

"A Personal Service"

Since our firm was founded in 1892 we have endeavoured to set a standard in Greenhouse building second to none. Enquiries should be addressed to Mr. R. F. Strawson, who will *personally* send estimates and full particulars of the famous Strawson range of Greenhouses, Frames, Greenhouse Heating, and other valuable information.

Mr. Strawson can also arrange personal Surveys o Inspection in any part of the country at short notice.

G. F. STRAWSON & SON
HORLEY · SURREY
Telephone: Horley 130

THE WORLD'S FIRST AND ONLY TCNB FUNGICIDAL SMOKE

Here is the Gardener's answer to Botrytis and Mildew on Chrysanthemums. FUMITE TCNB Fungicidal Smoke gives a simple, safe and speedy all-over treatment to your plants, and saves you time, labour, money and crops. This unique product, designed specially for this purpose, contains tetrachloronitrobenzene.

Fumite TCNB
keeps your chrysanthemums clean and healthy

FUMITE TCNB Fungicidal Smoke pellets Size 2 at 2/6 per tube of 4. For large houses Size 5 Generator, price 6/-

CHRYSANTH DOSAGE	PELLET SIZE 2	GENERATOR SIZE 5	TREATMENT
Serious infection	400 cu. ft. per pellet	5,000 cu. ft.	2/3 weeks
Normal infection	600 cu. ft. per pellet	7,500 cu. ft.	3 weeks
A preventive measure	800 cu. ft. per pellet	10,000 cu. ft.	1 month

British Patent Nos. 621732, 621894 and 651684. Application No. 18743/53—others pending

FUMITE DDT/LINDANE · FUMITE LINDANE · FUMITE AZOBENZENE

FUMITE REGD. **SMOKE PESTICIDES**

From Seedsmen, Ironmongers, Chemists and through all branches of BOOTS

In case of difficulty write to **WAECO LIMITED** (FUMITE Division)

120/2 VICTORIA STREET LONDON S.W.1. Telephone: Tate Gallery 9436

By Appointment Nurserymen & Seedsmen

to H.M. Queen Elizabeth The Queen Mother

We publish annually the following Catalogues

TREES & SHRUBS
(Price 1/6)

Including Rhododendrons, Conifers, Climbers and Bamboos. Growers commercially of the greatest number of species and varieties hardy in the temperate regions.

Hedging Plants.

Large specimen Trees and Shrubs for immediate effect.

Hardy Perennial, Biennial, Alpine and Aquatic Plants (price 1/-).

Rose Trees, including species and old-fashioned types, and **Fruit Trees.**

Vegetable and Flower Seeds and sundries, **Corms and Bulbs for Spring planting, Summer Bedding and Greenhouse plants.**

Please send us your request for those in which you may be interested.

(Request for Tree and Shrub Catalogue must be accompanied by remittance for 1/6, and for Perennial Catalogue, by 1/-)

Any not at present available will be sent when published.

HILLIER & SONS
WINCHESTER

Awarded Gold Medal at every Chelsea Show since the War!

The best of all Sweet Peas are Bolton's

New autumn catalogue now ready, giving full description of novelties and all the best varieties. Send for a copy, post free on request.

Awarded 314 Gold Medals

ROBERT BOLTON & SON
Birdbrook, Nr. Halstead, Essex

There's nothing as good as . . .

SANGRAL

TEN-DAY FERTILISER
for

CINERARIAS
CALCEOLARIAS
PRIMULA
AZALEA INDICA
SCHIZANTHUS

In fact

ALL INDOOR PLANTS

CARTONS 2/6, 5/- • PACKETS 8d.
BOTTLES 2/-, 3/6

SOLD EVERYWHERE
GET IT TODAY!

GOOD MICHAELMAS DAISIES

will bring colour and brightness to your garden

Here, at Buckland Nurseries, I grow over 120 of the finest and newest varieties in the country.

You will find the loveliest and most exciting colours amongst these glorious new varieties—palest pink to richest crimson, and light blue to bright purple—and some of the flowers are 3 inches across.

Now is the time to choose, buy, and plant, and next year an Autumn Garden of great beauty will be yours.

SPECIAL COLLECTION: 1 each, 12 superb varieties. Winston Churchill, Festival, Ada Ballard, Fontaine, Harrison's Blue, Moderator, Ernest Ballard, Alex Norman, Lady Paget, Eventide, Blandie, Erica.

30/- (carriage paid). C.W.O.

New catalogues of Michaelmas Daisies and of border and rock plants free.

BUCKLAND NURSERIES
Phone REIGATE 2990
SURREY

THE

fortnightly show

is the best possible excuse for a really good lunch with a glass of wine at the

Army & Navy Stores

It's only four minutes' walk to Victoria Street; you'll find good food and good service there

---

DAFFODILS AND NARCISSI

This is the month to plant them—and here are the best to plant:

TRUMPET VARIETIES—top size 8d each, 7/6 dozen, 55/– 100. Mother bulbs, 9d, 8/6, 65/–. Golden Harvest, King Alfred, Magnificence, Mrs. E. H. Krelage, Queen of Bicolors, Rembrandt

MEDIUM AND SHORT CUP VARIETIES—top size 6d each, 5/6 dozen, 40/– 100. Mother bulbs, 8d, 7/6, 55/–. Actaea, Carbineer, Carlton, Fortune, Helios, Marion Cran, Mrs. Barclay, Orange Glow, Scarlet Elegance, Tunis

POETAZ OR CLUSTER FLOWERED VARIETIES—top size 6d each, 5/6 dozen, 40/– 100. Cheerfulness, Geranium, Laurens Koster, Scarlet Gem, St. Agnes and Jonquil, Trevithian

MIXED DAFFODILS AND NARCISSI—all sections mixed, early and late varieties. Ideal for naturalizing. Top size 5/6 dozen, 40/– 100. Second size, 4/–, 30/–

Post and packing 2/6 on orders under £5
Free delivery on all orders within our van area

THE ILLUSTRATED LIST of selected Dutch bulbs—may we send you a copy?

everything for everyone

VICTORIA STREET SW1 · VICTORIA 1234

WANTED

RHODODENDRON WOOD

Woodland suitable for a Rhododendron Nursery. 10 acres and up, good access, water if possible.

Box No. 1
c/o The Royal Horticultural Society
Vincent Square, London, S.W.1

THE SHREWSBURY ROSES

are so hardy, well-grown and well-rooted that they flourish from Orkney to Cornwall and in many places abroad as well.

Edwin Murrell, Ltd.
PORTLAND NURSERIES,
SHREWSBURY

WHY DAMAGE TREES
WITH CORD TIES?

TOMS RUBBER TIES

AS USED BY GOVT. DEPTS., CORPORATIONS, PUBLIC BODIES, &c.

The Rubber slotted Pad is fixed to stake with tacks and receives the belt which forms the tie.

THE BEST TIE
For Young Trees
SIMPLE & EASILY FIXED WITH TACKS

FOR ROUND STAKES
16/6 doz. 135/- 100

SMALL PATTERN
FOR STANDARD ROSES
1 doz. 10/6; 2 doz. 20/-;
3 doz. 28 6; per 100 75/-
Carriage Paid

J. TOMS
26 LONDON ROAD,
MAIDSTONE

WALTER BLOM & SON LTD.
Coombelands Nurseries,
Leavesden, Watford,
Herts.

GROWERS OF FINE BULBS SINCE 1870

FOR QUALITY AND SERVICE

You will be most welcome to visit our Sunninghill Park trial grounds, situated on the edge of Windsor Great Park, any time convenient, as the Gardens are open all day and every day, including Sundays. A copy of our FULLY ILLUSTRATED CATALOGUE will be sent on request.

SPRAYING
simplified

The simplest and most effective way of spraying is with a Monitor. One-handed action, versatility and unequalled coverage—these are the advantages. See them at your ironmonger's or seed merchants, or write for descriptive literature.

MODEL 528

This 2-pint capacity model provides a diffused spray or projects a 10-ft. jet without continuous pumping. In polished brass with easy-to-grip handle. 49/9.

See also the exclusive Monimist atomiser, 29/–, and the HDI one-pint sprayer, 47/6.

it must be a

MONITOR

MONITOR ENGINEERING & OIL APPLIANCES LTD.
STECHFORD BIRMINGHAM, 33

A Member of the Parkinson & Cowan Group

---

6 garden tools in ONE!

An all-purpose tool that lifts the leaves and rubbish; an efficient hoe; a trenching tool; an effective weed grubber; a handy scoop when needed and a sturdy scraper are all yours.

The DOZA
DOES IT ALL!

Of tempered steel in 5 sizes from 8/-

See it at your dealers or write for leaflet to:

CRESCO LIMITED
Dept. R.H.S., Brougham Road Works, Worthing

Rivers
ESTABLISHED 1726
of Sawbridgeworth

for

FIRST-CLASS STRAWBERRIES

ROYAL SOVEREIGN
HUXLEY'S GIANT
Entered for Certification

POT PLANTS (August)
15/- per doz., p. and c. 3/-
100/- per 100, p. and c. 15/-

OPEN-GROUND RUNNERS
(September-October)
8/- per doz., plus 2/6 per order less than 50
50/- per 100, p. and c. paid
Cambridge Varieties on application

CATALOGUE ON REQUEST

THOMAS RIVERS & SON LTD
SAWBRIDGEWORTH · HERTS
TELEPHONE 2136

---

light!

strong!

HANDY!

Get a Handibarrow—NOW. You'll like its lightness and ease of manoeuvre. You'll appreciate its ease of filling and emptying. You'll enjoy wheeling it with only one hand. Well balanced, there is no fear of toppling over, and wheel tracks are designed to fit an average garden path. Ideal for the lady gardener and the not-so-young. Not to be despised by the he-man: capacity almost equal to that of the conventional wheelbarrow.

Price — only 67/6!

Chase HANDIBARROW

CHASE PROTECTED CULTIVATION LTD.
85 CLOCHE HOUSE, SHEPPERTON, MIDDLESEX

WANTED

RHODODENDRON WOOD

Woodland suitable for a Rhododendron Nursery. 10 acres and up, good access, water if possible.

Box No. 1
c/o The Royal Horticultural Society
Vincent Square, London, S.W.1

THE SHREWSBURY ROSES

are so hardy, well-grown and well-rooted that they flourish from Orkney to Cornwall and in many places abroad as well.

Edwin Murrell, Ltd.
PORTLAND NURSERIES,
SHREWSBURY

WHY DAMAGE TREES
WITH CORD TIES ?

TOMS RUBBER TIES

AS USED BY GOVT. DEPTS., CORPORATIONS, PUBLIC BODIES, &c.

The Rubber slotted Pad is fixed to stake with tacks and receives the belt which forms the tie.

THE BEST TIE
For Young Trees
SIMPLE & EASILY FIXED WITH TACKS

FOR ROUND STAKES
16/6 doz. 135/- 100

SMALL PATTERN
FOR STANDARD ROSES
1 doz. 10/6; 2 doz. 20/-;
3 doz. 28 6; per 100 75/-
Carriage Paid

J. TOMS
26 LONDON ROAD,
MAIDSTONE

WALTER BLOM & SON LTD.
Coombelands Nurseries,
Leavesden, Watford,
Herts.

GROWERS OF FINE BULBS SINCE 1870

FOR QUALITY AND SERVICE

You will be most welcome to visit our Sunninghill Park trial grounds, situated on the edge of Windsor Great Park, any time convenient, as the Gardens are open all day and every day, including Sundays. A copy of our FULLY ILLUSTRATED CATALOGUE will be sent on request.

SPRAYING
simplified

The simplest and most effective way of spraying is with a Monitor. One-handed action, versatility and unequalled coverage—these are the advantages. See them at your ironmonger's or seed merchants, or write for descriptive literature.

MODEL S2B

This 2-pint capacity model provides a diffused spray or projects a 10-ft. jet without continuous pumping. In polished brass with easy-to-grip handle. 49/9.

See also the exclusive Monimist atomiser, 29/-, and the HDI one-pint sprayer, 47/6.

it must be a

MONITOR

MONITOR ENGINEERING & OIL APPLIANCES LTD.
STECHFORD BIRMINGHAM, 33
A Member of the Parkinson & Cowan Group

---

6 garden tools in ONE!

An all-purpose tool that lifts the leaves and rubbish; an efficient hoe; a trenching tool; an effective weed grubber; a handy scoop when needed and a sturdy scraper are all yours.

The DOZA
DOES IT ALL!

Of tempered steel in 5 sizes from 8/-

See it at your dealers or write for leaflet to:
CRESCO LIMITED
Dept. R.H.S., Brougham Road Works, Worthing

Rivers
ESTABLISHED 1725
of Sawbridgeworth

for

FIRST-CLASS STRAWBERRIES

ROYAL SOVEREIGN
HUXLEY'S GIANT
Entered for Certification

POT PLANTS (August)
15/- per doz., p. and c. 3/-
100/- per 100, p. and c. 15/-

OPEN-GROUND RUNNERS
(September-October)
8/- per doz., plus 2/6 per order less than 50
50/- per 100, p. and c. paid
Cambridge Varieties on application

CATALOGUE ON REQUEST

THOMAS RIVERS & SON LTD
SAWBRIDGEWORTH · HERTS
TELEPHONE 2138

---

light!

strong!

HANDY!

Get a Handibarrow—NOW. You'll like its lightness and ease of manoeuvre. You'll appreciate its ease of filling and emptying. You'll enjoy wheeling it with only one hand. Well balanced, there is no fear of toppling over, and wheel tracks are designed to fit an average garden path. Ideal for the lady gardener and the not-so-young. Not to be despised by the he-man: capacity almost equal to that of the conventional wheelbarrow.

Price — only 67/6!

Chase HANDIBARROW

CHASE PROTECTED CULTIVATION LTD.
85 CLOCHE HOUSE, SHEPPERTON, MIDDLESEX

"Give your lawn extra care this Autumn"

PRICE: 4/6 per drum
Also available in large drums at 31/6 and 42/-

Says FRED STREETER

Your lawn has probably had an exhausting Summer; now is the time when rest and recuperation are sorely needed. Now is the time when extra care and attention will be repaid with really magnificent grass next year, and the material cost is trifling.

Free Offer

I've written a little leaflet on "Autumn Care of Lawns"—that tells you all about it. If you would like a copy please write to me—it's quite free.

Fred Streeter, V.M.H.,
c/o Plantoids Limited,
Bromley, Kent.

PLANTOIDS
REGD.

EXTRA CONCENTRATED

LAWN DRESSING

x

JOURNAL OF THE ROYAL HORTICULTURAL SOCIETY

VOL. LXXXI PART TEN

October 1956

THE SECRETARY'S PAGE

ANNOUNCEMENTS—OCTOBER AND NOVEMBER

Shows

TUESDAY, October 2 12.30 P.M. to 6 P.M. WEDNESDAY, October 3 10 A.M. to 5 P.M.	Fortnightly Flower Show. Fruit and Vegetable Show.
TUESDAY, October 16 12 NOON to 6 P.M. WEDNESDAY, October 17 10 A.M. to 5 P.M.	Fortnightly Flower Show. Tree and Shrub Competition.
TUESDAY, October 30 12 NOON to 6 P.M. WEDNESDAY, October 31 10 A.M. to 5 P.M.	Fortnightly Flower Show. British National Carnation Society's Competition.
FRIDAY, November 2 1 P.M. to 7.30 P.M. SATURDAY, November 3 10 A.M. to 6 P.M.	National Chrysanthemum Society's Show.
TUESDAY, November 13 12 NOON to 6 P.M. WEDNESDAY, November 14 10 A.M. to 5 P.M.	Fortnightly Flower Show.
TUESDAY, November 27 12 NOON to 6 P.M. WEDNESDAY, November 28 10 A.M. to 5 P.M.	Fortnightly Flower Show. Late Apple and Pear Competition.

Lectures

TUESDAY, October 2, at 3 P.M. "Thoughts of a Fruit Grower", by MR. T. NEAME, V.M.H.

TUESDAY, October 16, at 3 P.M. "The 1954 Expedition to Nepal", by L. H. J. WILLIAMS, J. D. A. STAINTON and W. SYKES, N.D.H.

TUESDAY, October 30, at 3 P.M. "The English Landscape Garden in the Eighteenth Century", by MR. F. J. B. WATSON.

TUESDAY, November 27, at 3 P.M. "Control of the More Important Pests and Diseases of Fruit", by MR. G. L. HEY, M.A.

Demonstrations at Wisley—The following demonstration will be given at Wisley, that on the second day being a repetition of that given on the first.

Fruit Garden

NOVEMBER 21–22. The Pruning of Fruit Trees. (Commencing at 11 A.M.)

Restaurant at Wisley—The Restaurant at Wisley will be closed after October 14. It will re-open in 1957 on a date to be announced.

Lily Group Meeting—There will be a meeting of the Group in the Restaurant of the Old Hall at 4 P.M. on Tuesday, October 16, when questions relating to lilies and allied genera will be answered.

Results of the Society's Examinations held in 1956.

Examination for the National Diploma in Horticulture. This is the most important of the Examinations conducted by the Society and is intended for the professional horticulturist. Candidates for the examination must produce evidence of having followed the vocation of horticulture for specified periods. Both the Intermediate and Final Examinations involve practical tests, conducted at Wisley and elsewhere, as well as written work.

In 1956 there were 130 candidates for the Intermediate Examination, of whom 38 acquitted themselves sufficiently well to be allowed to take the Final Examination if or when they are able to satisfy the regulations governing entry for this examination. For the Final Examination there were 73 candidates, and the Diploma has been awarded as follows:—

Section I—*General Horticulture*

MR. H. F. ERMEN
MR. J. A. F. PERKINS
MR. R. L. SHAW
MR. V. J. SMITH

Section II—*General Commercial Horticulture*

MR. G. A. V. ELLIS
MR. J. D. WHITWELL
MR. W. J. WRIGHT

Section III—*Fruit Crop Husbandry*

MISS G. A. COUCH MR. D. C. GEORGE
MR. A. F. CRISP MR. N. T. WEATHERITT

Section V—*Glasshouse Crop Husbandry*

MR. D. TYSON

Section VI—*Horticulture in Public Parks*

MR. J. B. DUNN MR. G. M. SCHOFIELD
MR. K. W. KENNARD

National Diploma in Horticulture with Honours

MR. A. I. CAMPBELL MR. T. W. PRINGLE

Examination for the National Certificate in Elementary Horticulture—This Examination, which includes both written and practical tests, was held in 1956 at seventeen County Farm Institutes. In all there were 218 candidates for the various Sections of this examination, of whom 31 obtained a pass with credit and 166 a pass.

NOTES FROM WISLEY

J. B. Paton

DURING October many fellows will be turning their thoughts towards rearranging and replanting parts of their gardens, and so it may be useful to summarize the results of some of the trials of perennial plants. The trials of these plants are conducted under two arrangements. First, there are the permanent trials which go on from year to year and new varieties are added each year as they are selected for trial by the appropriate committee after inspection of cut bloom at the shows. Secondly, there are the invited trials in which raisers and stockholders are invited to send plants of a particular herbaceous plant for trial in a specified year. Thus at the moment there are permanent trials of such plants as lupins, delphiniums and garden pinks, and invited trials of such plants as *Anemone japonica*, heuchera and erigeron. In certain cases the varieties received for an invited trial are used to start a permanent collection. This collection may be used as a standard to compare new varieties which are selected for trial at Wisley by the various committees meeting at Vincent Square.

The trial of perennial lupins is the first in the season to catch the eye, and there are many good garden plants to be seen here. All are easy to grow, and require no staking. The plants at Wisley are all propagated from cuttings taken in early spring and rooted in sand in a cold frame. The rooted cuttings are potted up singly into 3-inch pots from which they are planted out in late May or early June according to

Lectures

TUESDAY, October 2, at 3 P.M. "Thoughts of a Fruit Grower", by MR. T. NEAME, V.M.H.

TUESDAY, October 16, at 3 P.M. "The 1954 Expedition to Nepal", by L. H. J. WILLIAMS, J. D. A. STAINTON and W. SYKES, N.D.H.

TUESDAY, October 30, at 3 P.M. "The English Landscape Garden in the Eighteenth Century", by MR. F. J. B. WATSON.

TUESDAY, November 27, at 3 P.M. "Control of the More Important Pests and Diseases of Fruit", by MR. G. L. HEY, M.A.

Demonstrations at Wisley—The following demonstration will be given at Wisley, that on the second day being a repetition of that given on the first.

Fruit Garden

NOVEMBER 21–22. The Pruning of Fruit Trees. (Commencing at 11 A.M.)

Restaurant at Wisley—The Restaurant at Wisley will be closed after October 14. It will re-open in 1957 on a date to be announced.

Lily Group Meeting—There will be a meeting of the Group in the Restaurant of the Old Hall at 4 P.M. on Tuesday, October 16, when questions relating to lilies and allied genera will be answered.

Results of the Society's Examinations held in 1956.

Examination for the National Diploma in Horticulture. This is the most important of the Examinations conducted by the Society and is intended for the professional horticulturist. Candidates for the examination must produce evidence of having followed the vocation of horticulture for specified periods. Both the Intermediate and Final Examinations involve practical tests, conducted at Wisley and elsewhere, as well as written work.

In 1956 there were 130 candidates for the Intermediate Examination, of whom 38 acquitted themselves sufficiently well to be allowed to take the Final Examination if or when they are able to satisfy the regulations governing entry for this examination. For the Final Examination there were 73 candidates, and the Diploma has been awarded as follows:—

Section I—*General Horticulture*

MR. H. F. ERMEN
MR. J. A. F. PERKINS
MR. R. L. SHAW
MR. V. J. SMITH

Section II—*General Commercial Horticulture*

MR. G. A. V. ELLIS
MR. J. D. WHITWELL
MR. W. J. WRIGHT

Section III—*Fruit Crop Husbandry*

MISS G. A. COUCH
MR. D. C. GEORGE
MR. A. F. CRISP
MR. N. T. WEATHERITT

Section V—*Glasshouse Crop Husbandry*

MR. D. TYSON

Section VI—*Horticulture in Public Parks*

MR. J. B. DUNN
MR. G. M. SCHOFIELD
MR. K. W. KENNARD

National Diploma in Horticulture with Honours

MR. A. I. CAMPBELL
MR. T. W. PRINGLE

Examination for the National Certificate in Elementary Horticulture—This Examination, which includes both written and practical tests, was held in 1956 at seventeen County Farm Institutes. In all there were 218 candidates for the various Sections of this examination, of whom 31 obtained a pass with credit and 166 a pass.

NOTES FROM WISLEY

J. B. Paton

DURING October many fellows will be turning their thoughts towards rearranging and replanting parts of their gardens, and so it may be useful to summarize the results of some of the trials of perennial plants. The trials of these plants are conducted under two arrangements. First, there are the permanent trials which go on from year to year and new varieties are added each year as they are selected for trial by the appropriate committee after inspection of cut bloom at the shows. Secondly, there are the invited trials in which raisers and stockholders are invited to send plants of a particular herbaceous plant for trial in a specified year. Thus at the moment there are permanent trials of such plants as lupins, delphiniums and garden pinks, and invited trials of such plants as *Anemone japonica*, heuchera and erigeron. In certain cases the varieties received for an invited trial are used to start a permanent collection. This collection may be used as a standard to compare new varieties which are selected for trial at Wisley by the various committees meeting at Vincent Square.

The trial of perennial lupins is the first in the season to catch the eye, and there are many good garden plants to be seen here. All are easy to grow, and require no staking. The plants at Wisley are all propagated from cuttings taken in early spring and rooted in sand in a cold frame. The rooted cuttings are potted up singly into 3-inch pots from which they are planted out in late May or early June according to

the season. However, the autumn is a good time to transplant more established plants.

'Jean Baker' commences the season when its rather thin spike of soft lilac-mauve flowers appears, while for mid-season in the yellow shades one of the more popular varieties is 'Tom Reeves', a deep golden-yellow, and for a newer one 'Alicia Parrett' in pale cream was very attractive. For late flowering the pale cream 'Blushing Bride' and the bicolor 'Commando' both did well in this very cool season. In the red shades 'Firedrake', its cherry-orange bells touched with gold at the base of the standards, was noticeably good this season, as were the rich red 'Beryl Viscountess Cowdray' and the crimson and pink 'Charmaine'. In the purple shades 'Heather Glow' and 'Thundercloud' are popular in most gardens as are the royal blue and white 'Sailor Boy' and the pale blue and white 'Lady Diana Abdy'.

The invited trials of heucheras and erigerons have brought to the attention of a wide public some interesting new plants of British raising. These new heucheras have a 10-inch-long inflorescence of many small bell-shaped flowers, carried on a stem 10–12 inches high. Heuchera 'Scintillation' has crimson flowers, 'Firebird' coral red ones and 'Splendour' is pale rose. All make useful front-row plants for the herbaceous border and the specimens in the trials after three years' growth have made plants up to 20 inches across covered with a mass of heart-shaped leaves which are attractive at all times of the year. The majority of the varieties in the trial of erigerons are a new race which has been derived from crossing with *Erigeron aurantiacus* which was originally introduced from Turkestan in 1879. This species has orange flowers, and thus it is not surprising that some of its offspring have their pink and purple flowers tinted with orange. The dwarf-growing 'Prosperity' has semi-double 2-inch-wide flowers which are violet-tinged orange. Three taller ones at about 3 feet are the violet 'Dignity', the mauve 'Charity' and the phlox purple 'Felicity'. All these plants can be divided in the spring and readily increase in size so that although rather more expensive than the standard varieties they will no doubt in a year or two be down to the same price as these older ones. One often hears complaints that the new varieties are expensive, but it must not be forgotten that the raiser goes to considerable trouble to make the original selection or cross and subsequently may grow on for trial a hundred or more seedlings of which he is lucky if six reach the public eye. It then takes a year or two for these final selections to be propagated in sufficient quantities to allow general distribution.

The dry spring of 1956 was largely responsible for the more typical appearance of many of the delphiniums. The light sandy soil of Wisley encourages the production of rather tall spikes which in some years become rather gappy. This is counteracted to a certain extent by the application of 1 ounce per square yard of sulphate of potash. In particularly good form this year were the pale heliotrope 'Silver Moon', the butterfly-blue 'Anona', the deep-blue 'Royalist' and the violet

white-eyed 'Startling'. One plant of this last variety carried twenty main spikes without counting the numerous side spikes. Each variety in this trial is represented by three plants of which two are thinned down to five shoots in April, while the third is left unthinned. Of the older standard varieties 'Bridesmaid' in the pale mauve shades, 'Charles F. Langdon' in the blues and 'Beau Nash' in deep blue-purples were all once again shown to be dependable varieties.

For those Fellows considering the provision of a few plants to produce flowers for cutting a brief review of the trials of pyrethrums and solidagos may be appropriate. There are many old varieties among the pyrethrums in the Wisley collection. In the singles 'Eileen May Robinson', pale rose-pink, 'Scarlet Glow' and 'Harold Robinson', bright crimson, are all old stagers which received awards in the last trial of 1933. Of the newer single ones 'Crimson King', 'Pink Beauty' and the rich pink 'Allurement' are all varieties which should find a place in any representative collection.

In the double-flowered section there were no striking novelties, but 'White Madeleine' had plenty of substance in the flower, and the rose-pink 'Marjorie Robinson', although very good in 1955 was not in such good condition this year. However, the trial was replanted this July, and with the continued cool damp summer all the young plants have grown away well.

The solidagos first planted as a collection in 1947 and replanted each spring have attracted much attention over the past nine years on account of both their early-flowering habit and the short stature of the plants as compared with the old tall, September-flowering golden-rod. In general there are two principal types of plant, the one with erect narrow pyramidal inflorescences as typified by 'Leneralis' and the other with a more branched flat-topped inflorescence as seen with 'Goldenmosa'. Of the latter type are two of the earliest to flower, usually by late July. They are 'Goldenlora', a soft golden-yellow, and 'Ledsham' with pale yellow ray florets and deep yellow disc florets. 'Leda', flowering in mid August has a very bright yellow flower carried in profusion on a spire-like inflorescence. 'Goldenmosa' and 'Golden Gate' coming into bloom in late August are among the most popular varieties on account of the mass of flower which they carry. All these plants may be increased by division in the autumn or spring.

The trial of garden pinks in a year with such inclement weather certainly proved that many of the newer pinks will stand up to incessant rain and wind without staking. After over 2 inches of rain in 24 hours in early July there were not less than twenty varieties which were still with upright stems and comparatively undamaged flowers and particularly noted on July 9 were the shell-pink 'Doris', the orange-scarlet 'Robin', the carmine-rose 'Margaret', the crimson 'Derek' and the purple 'Monty'. On a subsequent visit to the trial on August 7 it was noted that these varieties were still blooming freely, and were not broken down by the wind.

PLANTS OF INTEREST AT WISLEY DURING OCTOBER

GLASSHOUSES

Abutilons in variety
Cassia corymbosa
Erica canaliculata
Fuchsias in variety
Leonotis leonurus
Luculia gratissima
Solanum jasminoides
Tibouchina semidecandra

WILD GARDEN

Acer griseum
Disanthus cercidifolia
Fothergilla species
Hamamelis mollis
Liquidambar styraciflua
Oxydendrum arboreum
Vaccinium species

FLORAL TRIAL GROUNDS

Trial of Chrysanthemums
" " Dahlias
" " Perennial Asters

WEATHER HILL

Cotoneasters in variety
Gingko biloba
Malus in variety
Prunus in variety
Roses

LABORATORY WALLS

Amaryllis belladonna
Ceratostigma plumbaginoides
Clerodendron bungei
Cotoneaster horizontalis

AWARD OF GARDEN MERIT COLLECTION

Liriodendron tulipifera
Prunus avium plena
Rhus cotinus atropurpurea
Sorbus discolor

BATTLESTON HILL

Acers in variety
Enkianthus species
Parrotia persica
Quercus species
Rhododendron luteum

SEVEN ACRES

Berberis in variety
Betula species
Colchicums in variety
Cornus in variety
Hippophae rhamnoides
Pistacia chinensis
Quercus species
Rhus typhina
Taxodium distichum

INVITED TRIALS, 1957–8, WISLEY

The Royal Horticultural Society will carry out at its Gardens during 1957–8 the following trials for which entries are now invited.

Flowers

Calendula (½ oz. of seed of each variety).
Carnation, annual (¼ oz. of seed of each variety).
Cineraria, grandiflora types for cultivation under glass (sufficient seed to raise 60 plants of each variety).
Scabious, annual (½ oz. of seed of each variety).
Tagetes, African and French Marigold and *T. signata* section to be sown in the open (¼ oz. of seed of each variety).
Verbena × hybrida (¼ oz. of seed of each variety).

Vegetables

In the open ground

Beet, long varieties (1 oz. of seed of each variety).
Cauliflower, varieties maturing during September, October and November (½ oz. of seed of each variety).
Lettuce, Cabbage, summer butterhead varieties excluding curled varieties (½ oz. of seed of each variety).
Pea, late varieties maturing at the same time as or later than 'Gladstone' (1 pint of seed of each variety).

Under Dutch lights

Carrot (½ oz. of seed of each variety).
Lettuce, butterhead varieties, suitable to sow in August and to mature in the autumn and early winter (½ oz. of seed of each variety).

Conditions for entry to the Trials

1. All entries must be made on the appropriate form obtainable from the Director, The Royal Horticultural Society's Gardens, Wisley, Ripley, Woking, Surrey.

2. Entrant must certify on the form either:

(*a*) that the variety or strain has been raised or developed by him;

or (*b*) that the variety or strain was, or is about to be, introduced by him to British commerce.

The entrant must also supply sufficient particulars of the history of the variety or strain to substantiate his certificate, but such particulars will not be published by the Society without the sender's consent.

3. Entry forms must be completed and returned to Wisley not later than December 31st, 1956.

4. Seeds should not be sent until the entrant receives notification that his entry has been accepted.

5. In the event of too many entries being submitted for a particular trial the Council of The Royal Horticultural Society reserves the right to scale down the number of entries received.

Calendar of Invited Trials

1957	1958	1959
	Flowers	
Calendula	Antirrhinum, rust resistant varieties	Begonia
Carnation, annual	*Cineraria grandiflora*	*Cineraria stellata*
Freesia, from corms	Clarkia	Dimorphotheca
Phlox	Dahlia, dwarf bedding types	Gaillardia
Polyanthus	Nicotiana	Ipomoea
Primrose	Penstemon	Kniphofia
Scabious, annual	Salpiglossis	Nerine
Tagetes		Petunia
Tulip, Darwin		
Verbena from seed		
Wallflower		
	Vegetables	
Beet, long varieties	Carrot, maincrop	Bean, stringless
Cauliflower, autumn varieties	Cauliflower, early varieties	Brussels Sprouts
Lettuce, cabbage summer butterhead varieties	Celery, self-blanching	Carrot, early varieties
Lettuce, cos autumn sown	Pea, early varieties	Onion, white varieties
Pea, late varieties	Tomato	Pea, maincrop varieties
	Under Dutch lights	
Carrot		
Lettuce, butterhead varieties		

NOTE.—The years refer to those in which the trials will be judged. The calendar for 1958 and 1959 is provisional and may be altered at a later date.

SPRING FLOWERS IN SOUTH AFRICA

Sir Frederick Stern, O.B.E., M.C., F.L.S., V.M.H.

(*Lecture given on June* 19, 1956; THE HON. LEWIS PALMER, F.L.S., V.M.H., *in the Chair*)

WE went for a holiday to South Africa last autumn to see and photograph the flowers in Cape Province. We were told that the spring flowers were at their best in September, therefore it was essential to arrive at Cape Town early in that month. We landed on September 8.

Cape Town is dominated by Table Mountain and the Botanical Gardens at Kirstenbosch are directly under and on the slopes of the

mountain (Fig. 117). The garden was originally placed there because the "Silver Trees", *Leucadendron argenteum*, were indigenous there. They are delightful trees with their silver leaves which show up well when the wind blows. There always seems to be a breeze at Cape Town. It is amusing to see the Sugar Bird (*Pomerops cafer*) with its long tail among these trees; it is said to pollinate the flowers. Kirstenbosch is beautiful, being full of South African plants, proteas, watsonias, arctotis, dimorphothecas, gazanias and many others; there are also many great plants of the South African succulents. Some succulents will not thrive in this garden owing to the amount of rain. Here there is a great deal of rain, since the garden is just under the mountain; so the authorities have started a succulent garden further north where there is less rainfall, near the town of Worcester.

After a few days at Cape Town we motored out towards the north-west of Cape Province to the town of Darling. About ten miles further beyond Darling on the Yesterfontein road, there are a few acres of the original veldt which has been left in its natural wild state by the local farmers. Most of this land is under cultivation and so the wild flora is disappearing. On these acres the wild flowers were growing in profusion as they did before the cultivation began. The arum lilies were in flower mixed up with large plants of mesembryanthemum known as the Hottentot figs; its real name is *Carpobrotus edulis*; the botanists have given most of the mesembryanthemums new names.

One of the features of the flowers of Cape Province is the number of different genera all growing and flowering mixed up together. On these few acres there were romuleas, gazanias, arctotis, lachenalias, *Spiloxene capensis*, a charming plant with vivid yellow flowers, pink moraea, blue babiana growing surprisingly in very wet places. There was also any amount of other plants which we could not name and one most exciting plant *Antholyza ringens*; this plant has red flowers rather low on the ground with a "rat-tail" rising up about 6 inches above the flower; this "rat-tail" is said to be used as a perch for the sun-bird (*Cinnyris*) to sit on when it comes for the honey in the flower and so fertilizes the plant, a most surprising provision of nature; it sounds like a traveller's tale, but we were assured that this has been proved to be correct. We went on to Tulbagh going through the very pretty Gouda-Berg Pass. All the way through this country there was a bewildering number of delightful plants, many in masses like *Homeria collina*, hypoxis, babianas and *Gladiolus alatus*, and many moraeas, *M. plumaria* with lilac flowers and an orange one with a green eye.

The low-growing *Aristea cyanea* was in mass with deep blue flowers and looked as if it would be a first-class garden plant.

Our next journey was from Cape Town eastward to Caledon over the Sir Lowry Pass from where there is a grand view back over Stellenbosch towards Cape Town and the sea, and then on to a farm about thirty miles farther on. Caledon is a small village where there is a wonderful municipal garden with only local wild flowers. The day we

got there was hot and sunny and every arctotis, gazania, dimorphotheca, blue heliophila and many other annuals were in full flower, a bewildering sight (Figs. 118, 124). Many of the famous Cape heaths were also in flower in all colours from yellow to pink and deep red. Everyone who is in Cape Province in early spring should see this garden. The best gazania which we saw here and later found in many places on the roadside, growing like our primroses at home, was *G. pinnata*, a glorious deep red.

At the farm our charming hostess took us over the surrounding veldt, where there were any number of plants in flower. It was exciting seeing these flowers all new to us. Much of the veldt was covered with bushes of *Leucadendron salignum*, one of the proteaceae, with yellow flowers. There were two ground orchids, the most curious a spider orchid, *Bartholina pectinata*, a little plant with brown flowers like a spider upside down, and a small yellow orchid, *Corycium orobanchioides*. There were several heaths, *Erica blenna* the lantern heath, *E. massoni* with red flowers, white at the base, and several others, as well as moraeas, gladioli, homerias and many other delightful plants. *Watsonia spectabilis*, a fine brick-red in colour, was the only one found here.

Later we made for Hermanus on the coast, going over Shaw's Mountain Pass. We were fortunate in having CAPTAIN TOM BARNARD botanizing with us. He had been for a number of years Professor at the Cape Town University, so knew the country and where to go to find the wild flowers. He not only had a wonderful quick eye for a good plant but drove the car with great skill over every sort of road. As we approached the pass he said he had found a new moraea on this pass twenty-five years before. It was most exciting when we found *Moraea barnardi*, called after our friend, in flower in the same place as it was many years before. There were also here another *M. angusta* with yellow flowers and a lovely pink acidanthera.

A splendid new road runs from Hermanus along the coast by False Bay to Gordon Bay, with views of Table Mountain and the Cape Peninsula across the bay. The rocky cliffs above the road were covered with protea bushes and heaths with many flowers; the low bushes of *Adenandra uniflora* with pinky-white flowers were especially fine.

Near here, at Somerset West, there is one of the oldest and most interesting houses in Cape Province, named "Vergelegen", built about 1700 by the Governor of the Dutch East India Company, WILHELM VAN DER STEL. He planted many fine trees, among others camphor trees imported from Batavia; these are now as large as old oaks in this country. The house has a lovely position with the Hottentot-Holland Mountains in the distance; it is a typical Dutch South African house with white-washed walls, large windows and reed-thatched roof.

On our way back to Hermanus, there were any number of plants new to us; the droseras, the sun-dews with their leaves covered with a sticky substance said to catch flies; the flowers are large and in different colours, from scarlet to pink and white. Baboons are a nuisance here

as they eat the watsonias. We saw a family of them, mother and father and two youngsters playing on the road.

Then we made for the Little Karoo to try to photograph the succulents that grow there. A friend who is keen on these South African succulents asked us before we left England to do this. He said he knew how these plants grew in pots but wanted to know how they grew in the wild.

We motored up over Shaw's Mountain Pass to Villiersdorf through Worcester to Montagu, a small village with hot-water springs on the edge of the Little Karoo. On the way there were many interesting plants; near the road there was a parasite with scarlet flowers, *Hyobanche sanguinea*, with no leaves showing, most effective on the white sandy ground. An interesting ground orchid, *Satyrium erectum*, with beautiful pink flowers all up the foot-high stem, was growing in the scrub near the road. Again there were lachenalias, *Gladiolus alatus*, homerias and blue babianas in profusion in any rough ground. As we drew nearer to Montagu, the flora began to change. There were bushes of euphorbias 2 to 3 feet high, more mesembryanthemum-like plants and the deep red *Gazania pinnata* all along the sides of the road. Then, approaching Montagu, the scene changed again and the road ran through a high rocky gorge with the sides covered with euphorbia bushes and a scarlet-flowered *Aloe comptoni*. Along the road there were masses of beautiful mesembryanthemum-like plants with red and pink flowers and a charming trailing plant with large yellow flowers which has been named *Corpuscularia grielum*.

From Montagu we went into the Little Karoo where we spent a week. All the succulent plants were quite unlike any flora we had ever seen; we might have been on another planet. The Little Karoo consists of broad valleys between high mountains, with aloes and large euphorbia bushes, crassulas large and small, cotyledons, small gibbaeums and many others we did not know. The first exciting plants we came across were a tritonia and the Karoo violet, *Aptosimum indivisum*; the tritonia, which we later found to be named *T. watermeyeri*, was growing only on one kopje; in fact, the herbarium people in Cape Town told us it had only been found in two places in Cape Province. It has yellowish-pink flowers which were very attractive. The Karoo violet is not a violet at all but belongs to the same family as the antirrhinums; it has violet flowers covering the plant, which grows flat along the ground. The leaves are light green, which makes it look fresher than the succulent plants surrounding it. The only other plant with fresh-green-looking leaves was *Sutherlandia frutescens* with scarlet lobster-claw-like flowers, very like a small *Clianthus puniceus*. Some of the country was covered with large bushes of *Euphorbia mauritanica* and the hillside with an *Aloe liniata* var. *muirii*, with yellow flowers, about 3 to 4 feet high. On some rocky places there was a red-flowered *Crassula rupestris* making small bushes about 2 feet high and the same across. Mixed with these were mesembryanthemum plants with flowers of many different

colours. We called all these "mesems" though the botanists have given them new names, some very long and somewhat unpronounceable, such as that of a large form with red flowers, *Cylindrophyllum columniformis*.

The most exciting of all were the strange small succulents. A local farmer, who was keen on succulents, told us that whenever we saw outcrops of quartz we would be likely to find these small strange plants. So whenever we saw such places, we spread out to look among the stones; many of these small plants look so much like stones that they are difficult to find. When we found one in flower, we dropped a handkerchief on it otherwise we would never find it again. The one most like a stone was *Didymaotis lapidiformis* which was exactly like the surrounding stones; the flowers, like large daisies, are white and come out from each side of the centre of the plant. The small crassulas were also exciting; *C. pyramidalis* makes a plant some 6 to 10 inches high, branched like a tree, with the stem in layers like a concertina with a number of small red flowers on the top. *C. columnaris* is smaller with a larger head of dull orange flowers. The strangest of all the crassulas was *C. laticephala*; only a few inches high the stem consists of succulent pointed layers all facing downwards, about five or six, topped by a comparatively large round head of brown flowers. It is difficult to describe these curious plants and much easier if they can be seen in photographs.

Near the small village of Warmwatersberg there was a large number of gibbaeums, either *G. heathii* or *pubescens*, with pink flowers, about 100 yards of them all growing among the quartz outcrop. The curious thing about these small succulents was that they never grew together into a mass but each plant was separated by about a foot or more from its neighbour; also all the different succulents were very local. We only found one stapelia, but it was not in flower. The gibbaeums grew out in the open, but most of the other small succulents take shelter under low bushes. One *Crassula perfossa* grew out in the open with vivid red leaves quite low on the ground, from which rose thin stems about a foot high with little yellow flowers spread at intervals up the stem. There were also a number of cotyledons and crassulas and other strange plants like the succulent annual *Augea capensis* with orbicular yellow flowers. We were so fascinated by this unique flora that we went back again later on to Ladismith, a small village further up into the Little Karoo (not to be confused with Ladysmith in Natal), but unfortunately the weather was bad; it rained nearly all day, though it is said to have only a few inches a year, and snow fell on the surrounding mountains that night, which the locals said had not happened for eighteen years. Next morning was fine, but none of the mesembryanthemums and smaller succulents were in flower. One hillside was splendid in spite of the rain and cold; large bushes of *Crassula arborescens* were covered with white flowers and the extraordinary *Aloe ferox* about 6 feet or more high with aloe-like leaves on the top of a formidable stem looked down on us.

On the way back we went to the Karoo garden near Worcester,

situated on a rocky side of the mountain. Here is a collection of succulents found in the Katroo. The curator, an enthusiast, took us round and showed us a bewildering number of succulents and South African annuals all in flower. The aloes were extraordinary; the strangest was *A. pearsoni* about 2 feet high with brown concertina-like stems. The curator was particularly proud of his collection of stapelias. They were doing splendidly under overhanging rocks, making large plants; some were in flower, *S. pillansii* with evil-looking dark red flowers, and *S. diplocyatha* var. *ciliata* with large white flowers.

On our return to Cape Town we went to stay at Noordhoek and enjoyed the hospitality of the MISSES GODMAN. Their delightful house is on the side of the mountain on the peninsula overlooking the sea. The native flora, full of treasures, is growing all around this house. The white chinkerinchee, *Ornithogalum thyrsoides*, was in full flower in wet places; on the hillsides there were masses of the yellow *Moraea edulis* and *Gladiolus blandus*, the lovely gladiolus known as the 'Painted Lady', which has white flowers with red markings. The ground orchids of the Cape Province are beautiful; here were two in flower; the yellow-flowered *Satyrium coriifolium* and near the coast, growing among the scrub in pure sand, the finest of them all, *S. carneum*, a tall plant about 2½ to 3 feet high with a head of light pink flowers.

There were any number of other flowers, different coloured moraeas, white, yellow and pink and a most lovely *Aristea spiralis* with large white flowers and a shrubby lobelia with blue flowers. On the way to the Cape of Good Hope, *Pelargonium tetragonum* with its pink flowers was hanging down the cliffs on the side of the road, and there was a trailing protea, *Leucospermum hypophyllum* with large yellow flowers. The Cape itself was covered with a pink annual mesembryanthemum.

On the way to Stellenbosch, a tall *Watsonia tabularis* var. *concolor* with red flowers was growing in the ditches on the side of the road.

At Stellenbosch, a charming town, there is a wonderful collection of succulents in the University garden, and nearby up on the hills is the protea farm of MR. F. C. BATCHELOR. At this farm which has a perfect setting high up overlooking the Hottentot-Holland mountains, MR. BATCHELOR has raised and planted the large shrubby proteas, the lovely unique plants indigenous to Cape Province (Fig. 120). It was an unforgettable experience to see a number of acres of these great bushes covered with large heads of flower, some red, some bright yellow and some orange. One of the most beautiful is known as 'The Blushing Bride', *Serruria florida*, a shrub about 4 feet high with white flowers, pink at the base; it became nearly extinct owing to everyone collecting it, perhaps its name attracted them besides the charm of the flower; MR. BATCHELOR raised it from seed and now grows it in quantity and so saved it from extinction.

The authorities have now taken powers to protect the unique flora of the Cape. The strict regulations about the collecting of plants are having a good effect.

Before we left for Johannesburg and Pretoria we went back to the Botanical Gardens at Kirstenbosch. More proteas were in bloom and several different species of watsonias and many other beautiful shrubs and annuals. There are only one or two plants other than South African ones in this garden, but mention must be made of one that was in full bloom, the warata, *Telopea speciosissima*; this is an Australian plant which is the national flower of Australia. It belongs to the protea family, a shrub about 8 feet high with large deep red protea-like flowers, a truly wonderful sight.

In Pretoria we were fortunate to arrive at the exact moment when the jacaranda trees were in full bloom. These trees with their blue flowers are not only in one street but in every street. The Transvaal gets its rain in the summer, while Cape Province gets most of its rain in the winter, so there was little in flower on the veldt. We did, however, find one very lovely crinum in full flower on the open veldt, *C. graminicola*, a low-growing plant with large scarlet flowers, about a dozen to a head, and broad, deep green, undulating leaves (Fig. 125).

So ended a most delightful holiday and we are grateful for the great kindness shown to us by all the kind friends we met.

SOME PLANT-HUNTING EXPERIENCES

Collingwood Ingram, F.L.S., V.M.H.

(*Lecture given on July* 17, 1956; SIR GILES LODER, BT., *in the chair*)

I SUPPOSE it might be said that in one way or another every gardener is a plant-hunter. For the more sedentary this horticultural sport —and, for most of us, a sport it certainly is—probably entails nothing more strenuous than the careful scrutiny of a number of trade catalogues; for others it may involve periodical visits to neighbouring nurseries, but for the majority it usually takes the form of an interchange of cuttings, seeds or bulbs with some fellow gardening enthusiast. I have, from time to time, practised all those methods myself; but it is not of these that I propose to talk today; my subject is the collecting of wild and little-known species in foreign lands.

Anyone who has, even tentatively, indulged in this fascinating hobby will not need to be told by me what an enthralling and exciting pastime it is. Not only does it give one a plausible excuse to visit all manner of outlandish places but it will serve, on one's arrival there, as an imperative urge to explore the wildest and least frequented parts of whatever country one happens to be in—mountains, valleys, forests and plains—that is to say, localities which one would not otherwise dream of exploring. In short, it is a pastime that possesses all the glamour of a treasure hunt with, moreover, a reasonably good prospect of a

handsome reward at its end. And what a thrill of satisfaction that discovery will give one!

Personally I have now indulged in this delightful hobby for well over thirty years and its pursuit has carried me to lands as far afield as Japan, Alaska, New Zealand, South Africa and Patagonia and, of course, to many other countries nearer home.

Although aware that I have often been following in the footsteps of other, and perhaps more competent collectors, I have never been discouraged by that thought for I know only too well how easy it is to overlook a good plant if it happens to be out of flower at the time of one's visit. Thus even in countries botanically well known striking discoveries may sometimes be made. For instance, in the spring of 1936, just before the outbreak of the Spanish Civil War, I found in the north-western corner of that country a handsome bi-coloured broom—subsequently named *Cytisus ingrami*—which has proved to be a species not only new to cultivation but one hitherto unknown to science. Still more surprising, six years later I found in Portugal another undescribed plant, a strikingly lovely rock rose which I have named *Cistus palhinhaii* —a species apparently confined to the limestone promontory of Cape St. Vincent where it forms compact hummocks of dark green foliage which constitute an almost ideal foil for its immense pure white flowers (Fig. 128); while during my South African trip I found and brought home no fewer than five new species of gladioli.

As you all know, the vast majority of the plants which have been introduced into this country during the last half-century or more have come to us in the form of seeds. That is admittedly the surest and safest way of introducing a species. Unfortunately, however, it is a method that involves a relatively long stay in one district—namely from the flowering season, when the plants can be recognized and their locations noted, to the ripening of their seeds which may mean a period of several months or more. For my part I have never had the time nor the patience to adopt this method and in consequence I have been obliged to collect living specimens of any subjects I have been particularly anxious to acquire as and when I have found them. When doing so I make a point of selecting the smallest seedlings available, not only because these are the ones that are most likely to survive, but also because they take up much less room—an important consideration when one has a long distance to travel. If small enough these tiny seedlings can generally be lifted with a ball of their native soil still adhering to their roots. To keep these balls intact I immediately wrap them up in a piece of damp cloth which is then tied round the top with string. Secured in this way the little plants can be handled with impunity and, if placed in a vasculum or polythene bag, can be conveyed from the field to your headquarters without the slightest fear of damage. On arriving there the wrapped bundles should be at once embedded in a layer of moistened moss which has previously been placed for that purpose in a shallow lidless box. Packed in this manner I have found that the seedlings will

keep healthy for an indefinite period, provided, of course, they are given plenty of air and light and never allowed to dry out. The only watering they will need thereafter is a daily or twice daily spraying of their foliage. To do this I usually use an old hair brush—a tip given me by the late E. A. BOWLES. If the tips of the bristles are dipped into water and then shaken over the plants anything from a gentle drizzle to a heavy thunder shower can, at will, be effectively imitated.

For shorter journeys I generally employ a large-mouthed glass sweet jar half filled with damp sand surfaced with charcoal chips. These jars serve as very efficient miniature Wardian Cases: a contrivance which was so successfully used by the mid-nineteenth century collectors to transport their living plants by the long sea voyage from China to England.

Whenever it has been possible I have preferred to start on a day's excursion with a definite object in view; that is to say, to set out with the intention of finding some particular plant or plants, rather than to wander aimlessly over an unknown terrain on the off chance of discovering something worth collecting—although that, too, has its many attractions. To obtain the necessary data for these objectives I have always found the best plan is to consult a local botanist. In my experience these have generally been obliging fellows who have been only too willing to ventilate their knowledge. The more precise the information they give you the more exciting will be your quest. They may tell you that the nearest habitat of the species you want is situated ten, twenty or even a hundred miles away and there, perhaps, be contained within an area of less than an acre in extent. Within reason the distance will not matter much if you have a car and can motor to some easily identifiable starting point, such as a village, ruin or bridge. Having arrived there you will probably be obliged to proceed across country on foot, following a route which your friend has more or less accurately described to you by means of a series of conspicuous landmarks. If these landmarks be sufficiently obvious they should serve to guide you unerringly to the locality you are seeking, and a short search thereafter will generally reveal the plant you are looking for.

A striking example of the success of this method was the discovery of a solitary bush of *Berberis ilicifolia*—an isolated plant that was growing some 6,000 miles distant from where I happened to be, which was in the dining-room of the Savage Club, lunching with CLARENCE ELLIOTT. As I was shortly departing on a plant-hunting expedition to southern Chile and, knowing ELLIOTT had previously collected in that part of the world, I asked him if there were any special plants, or plant, I ought to look out for. Without a moment's hesitation he replied that there was —a barberry of outstanding merit, which had not been seen in this country for over a century. Unfortunately, he said, he had only encountered a single specimen during his travels but as that would probably be in fruit at the time of my visit he insisted I should make every effort to find it. Thereupon ELLIOTT stretched across the table, picked

up the menu card, and forthwith drew upon its back a rough sketch map of the locality in which he had found the plant. By means of that precious document six weeks later I was able to make my way straight to that solitary bush! I found it, as my host had prophesied, in full fruit, and of these I gathered a liberal supply. Unhappily not one of those seeds germinated, nor did any of three subsequent consignments I received from the same source. In the end I was obliged to import half a dozen living plants, kindly obtained for me by an unknown correspondent residing in Magellanes. I am glad to say these have all lived, though they have not grown as vigorously as I would have wished and so far only one of them has made any attempt to bloom.

The history of this barberry's first introduction is perhaps worth mentioning. Some of the officers attached to SIR JAMES ROSS's Antarctic expedition in 1843 sent to England a few living specimens of this then unknown species. It seems that all but one of these succumbed, either during, or from the effects of, the long sea voyage home, and the sole survivor, after flowering at Kew, apparently followed suit a year or two later. From then until my consignment reached this country in 1949 the plant remained unknown in the northern hemisphere. In his article on this Patagonian barberry, published in *Curtis's Botanical Magazine* in 1847, HOOKER describes it as the handsomest member of its genus; than which I suppose, there could hardly be higher praise. This commendation is well deserved, for its flowers are of the same rich orange-yellow colour as those of *Berberis linearifolia* but are at least twice their size while its glossy-green holly-like leaves are also notably broader and larger.

Without guidance such as I have indicated it is often extremely difficult to find a plant one wants if it happens to be at all rare or locally distributed. For instance during a visit to Gibraltar some years ago I made up my mind to locate, if possible, the habitat of *Narcissus monophyllus*,* a plant which I have always regarded as among the most enchanting of all the dwarf daffodils. I knew from hearsay that it occurred somewhere in the neighbouring sierras of Andalusia, but exactly where I had not the slightest clue. Having succeeded in exciting the interest of an American friend in my quest, together one January morning, we commenced a systematic search of the countryside. It took us three weeks and heaven alone knows how many hundreds of miles of motoring and foot-slogging before we finally found our plant. But what a rewarding discovery it was! Beautiful in any surroundings here, growing in scattered drifts amidst the somewhat harsh and sombre vegetation of a Spanish mountain-side, the elfin grace of this little

* Dr. Fernandes classifies *N. monophyllus* as a subspecies of *N. bulbocodium*, but I am personally of the opinion it should be retained as a good species. I base this view partly on its very distinctive appearance but mainly on the fact that it never hybridizes in Nature (nor, so far as I know, in cultivation) with *N. bulbocodium*. Both plants occur in Andalusia and although it is true the flowering period of the latter is slightly later than that of *N. monophyllus* there is always a considerable overlap in the time of their anthesis.

daffodil seemed almost of an ethereal loveliness. Although plentiful enough within strictly limited areas, considering the country as a whole, this narcissus must be regarded as a great rarity. For that reason I have since been very careful to guard the secret of the whereabouts of these few widely scattered colonies, not because I fear any serious depredation from amateur collectors, but because of the danger that would threaten the species if the local inhabitants became aware of the relatively high commercial value of its bulbs. The wholesale marketing of its bulbs has, I understand, already virtually exterminated the plant in many parts of the Chrea mountains in Algeria.

But human cupidity cannot always be blamed for the disappearance of a plant. About twenty years ago PROF. PALHINHA of Lisbon told me where I could find a colony of *Narcissus gaditanus minutiflorus*, a diminutive species belonging to the *Juncifolius* section. Although the site he spoke of was situated more than a hundred miles from Lisbon, I had no difficulty in locating the spot. There, covering the crown of a small hill, I found the plant in such countless numbers that in places their tiny yellow flowers almost hid the stony soil in which they were growing. Some ten years later I revisited that same hill-top. Not a single daffodil was to be seen! Now, since this species, to the best of my belief, has never been offered for sale one can only conclude that its total disappearance must have been due to some natural cause. Was it unable to endure the phenomenal droughts which had prevailed in that part of the Algarve during the two summers immediately preceding my visit? That, I admit, does not seem a very probable explanation but it is the only one I can think of.

I have always been especially fond of the wild species of bulbous irises and therefore grow as many of them as I can lay my hands on, or as my soil and climate permits. One that I was particularly anxious to acquire, and could not obtain from any nurseryman or other source, was *Iris boissieri*. My anxiety to add it to my collection was not so much based on its beauty—although that is considerable—as on its botanical interest, for among the *Xiphium* irises it is unique in being the only species possessing a bearded haft. Knowing it to be a native of Portugal, on one of many trips to that country I determined to make every possible effort to find it. Unfortunately, all I could glean about its habitat was that it occurred somewhere in the Gerez Mountains and since that range extends for a hundred miles or more along the northern frontier of Portugal that was not much of a clue to go upon. Although I fully realized my chances of finding this iris were extremely remote, especially as it would be out of flower at that time of the year (July), I decided to motor to a place called Caldas de Gerez, a small village situated at the foot of these mountains, trusting that I might there learn something more tangible about the plant. By a singular stroke of luck that proved to be the case. It so happened that an employee of the Forestry Department had just come into the village for a couple of days' shopping. When I showed him a sketch of the iris he recognized it at once. Yes,

he knew where it grew but the place was a very, very long way from Caldas. However, tempted by the promise of a fairly substantial reward, after some persuasion he finally agreed to guide me to the spot on the following day. I forget now what sum I gave him but whatever it was the fellow undoubtedly earned it. The rocky mountain-side upon which the iris lived proved to be about 4,000 feet above sea-level and it took us fully seven hours to reach it—a dragging up-hill climb all the way. It would have been a dreary and tiresome trudge had one's interest not been constantly stimulated by the wild scenery and an unfamiliar sylvan flora in which Martagon lilies figured prominently. In many places their pastel-pink flowers fringed the woodland path and filled the air with a heavy summery fragrance.

Another *Xiphium* species that remained for many years one of my unfulfilled wants was the purple-blossomed *Iris filifolia*. The first concrete evidence I got of its existence was while I was staying in Tangier. A gardening friend who resided there informed me one day that he had just seen a man come into the market-place with a flower of this iris stuck in his cap. When questioned the fellow told him he had plucked the bloom while acting as a beater in a wild boar shoot, but he could not remember exactly where and, indeed, was only able to give my friend a very general idea of the locality. Meagre though this information was we decided to act upon it. On the morrow, therefore, we hired a car and drove out to the area he had so vaguely indicated. Alas, a long day's search proved all in vain and, late that evening, we returned to Tangier tired, empty-handed, and so much the poorer by the cost of the car.

Twenty years elapsed before I finally acquired this iris. While staying in Gibraltar one winter I chanced to meet an amateur botanist who had found a colony of the plant in a cork wood some ten or twelve miles away. Although, as I subsequently discovered, the species is fairly plentiful where it occurs, its colonies are few and far between and, indeed, during several years of plant-hunting in Andalusia I have only encountered this iris in three separate localities.

The main object of my third and last visit to Japan in 1927 was to search for worth-while varieties of ornamental cherries, that is to say, for varieties which had not, to the best of my knowledge, already been introduced into Europe and America.

As everybody knows the cherry is Japan's national tree and in consequence vast quantities have been planted in many parts of the country. These are mostly single varieties, either *P. yedoensis* or one or the other of the wild native species. The double forms of the 'Sato Zakura' are not popular in Japan and as for 'Kanzan', that is grown there almost exclusively for export. The Japanese are far too artistically-minded to plant such a vulgar and garish variety for their own edification. With so much material to choose from it is not surprising that during my extensive travels up and down the country I came across quite a number of cherries which I had not seen before. But having found them I was

faced with the problem of how to get them to England! There seemed only one practicable way of doing this and that was to induce someone to send me scions of the varieties I wanted during the following winter months, that is to say, during their dormant season. The plan I adopted was this. On discovering a new and desirable form I would seek out a local gardener, of which there is never any dearth in Japan, since nearly all its inhabitants are plant-lovers, and most of them highly skilled horticulturists. Having succeeded in contacting such a man I would take him to the tree I was interested in, and then, through an interpreter, explain what I wanted. If he agreed to undertake the job, by way of encouragement I would give him a sum of money down and promise to send him a like amount immediately I received the grafts. These, I explained, should be despatched with their butt ends firmly embedded in a potato. This, of course, was to keep the cuttings fresh and plump during transit—a very necessary precaution in those days when a parcel sent from Japan would take anything up to five weeks to reach England. In due course all the scions I asked for reached me safely and, grafted on *Prunus avium* stock, have since grown into handsome trees. Today hundreds of their descendants may be seen in botanical and private gardens all over the world.

My quest for the rock cherry was fraught with many unforeseen difficulties. It was while staying on the Côte d'Azur that I first heard that this, the smallest of all the Prunus family, was to be found no further away than Corsica. Apparently, however, it occurred there on the summit of only one mountain, a peak called Punta del Fornello, situated in the centre of the island. Elated by the prospect of at last being able to secure a species I had for so long wished to add to my collection, I hurriedly packed my things and on the following day sailed for Ajaccio.

Being then mid-March, with spring already well advanced in the Riviera, it never occurred to me that the peak in question might still be deeply buried in snow. In fact, it was not until I landed and saw the distant mountains forming a gleaming white silhouette against the blue of the Mediterranean sky, that I began to have misgivings—misgivings that were soon to be strengthened by the warnings of all and sundry with whom I conferred. But having come thus far I had no intention of being deterred now by the gloomy forebodings of a few, probably, ill-informed townsfolk. I therefore hired a car and by that means made my way to Zonza, which, so far as I could judge from the map, was the village nearest to my objective. On arriving there I lost no time in engaging a local inhabitant to act as my guide on the following morning. As it turned out the man proved far too old for the job and after a few miles of steady climbing he reluctantly confessed he was unable to go any further. Luckily there happened to be an upland farm nearby and there I succeeded in enlisting the services of one of its occupants, a sturdy young peasant in his early twenties. But on reaching the foot of the peak, and seeing in front of him a forbidding snow-covered slope he, also, refused to go on.

This second defection might have induced me to abandon my project had I not felt convinced that if only we (for my son was with me) could manage to reach the summit we would find it wind-swept and comparatively free of snow. But could we reach it? That remained to be proved, and it was clear that the proof was not going to be easy. The drifts, which everywhere covered the boulder-strewn mountain-side were in many places waist-deep and to struggle through these at an angle of 45 degrees needed all our concentrated strength. Indeed, so slow was our progress that it must have taken us the best part of two hours to negotiate those last 500 feet of the ascent. But when we finally emerged on the small rounded plateau which formed the crest of the peak we were overjoyed to find, as I had anticipated, an almost bare surface and, what is more to the point, there, in full view, were extensive clumps of the little cherry we were seeking. Our troubles, however, were not yet over. On attempting to uproot a specimen we discovered that the ground was frozen as hard as iron and not even a pick-axe, let alone a trowel, could have penetrated it. It was only by rolling over a boulder, on the south side of which the sun had partially thawed the soil, that we finally succeeded in securing a tiny layer—a somewhat meagre reward, perhaps, for the expenditure of so much time and energy, but none the less, a very welcome prize. I am glad to say that little layer safely survived the journey home and is still living in my garden.

Imagination can play one strange tricks, especially if one happens to be in unfamiliar surroundings. An instance of this occurred during a motor trip through the Transkei in South Africa. LAURENCE JOHNSTON, of Hidcote fame, was with me at the time. Suddenly, in an excited voice, he asked me to stop the car saying he had just seen a plant of superlative beauty—a plant which we must, at all costs, collect. Hurriedly we both made our way back to the spot from where he had seen his botanical treasure. Sure enough, high up on the wooded cliff-side there was what appeared to be a large crimson-coloured bloom, a flower which we both agreed must be that of some unknown Liliaceous species. Although the climb was precipitously steep there were plenty of trees and shrubs to give me secure foot- and hand-holds and by using these as I would have the rungs of a ladder, I had no real difficulty in reaching my objective. I cannot recollect now whether I was more amused or disappointed when, at the end of my climb, I discovered not a plant of superlative beauty, but merely a piece of red paper—probably the wrapper from a slab of chocolate which had been carried to that lofty ledge by an upward gust of wind.

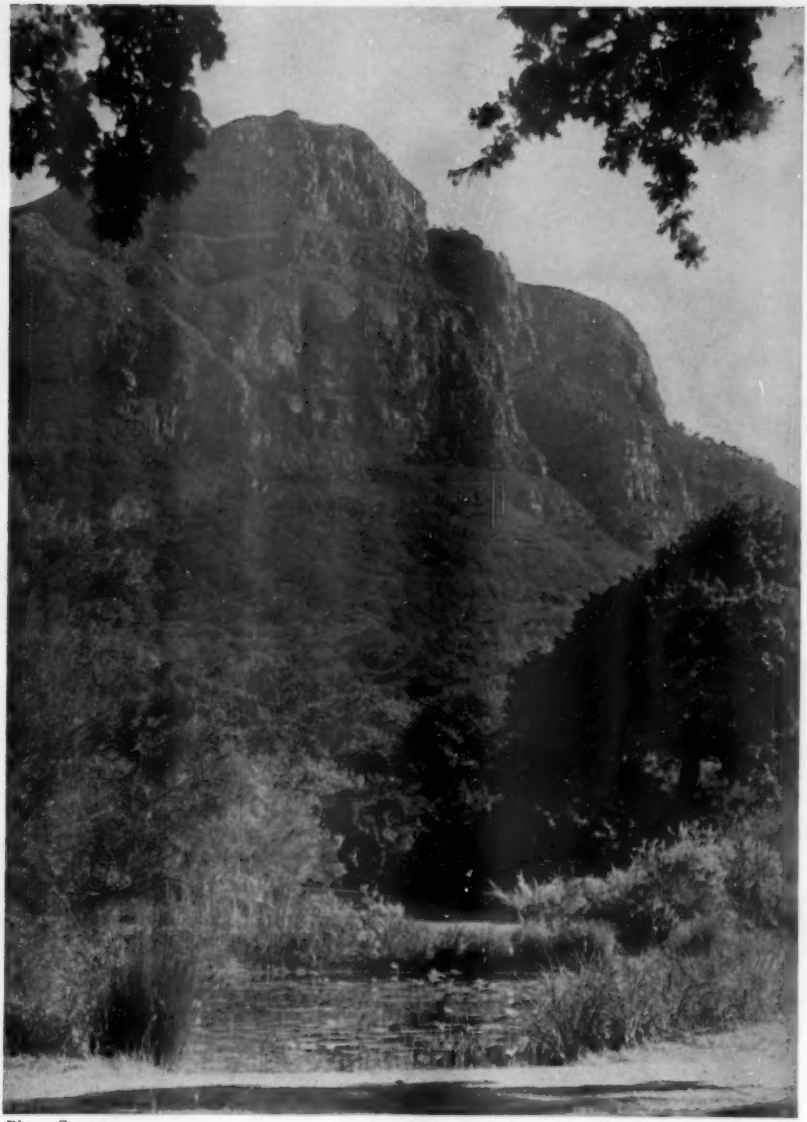
Aware of the temptations to which a collector is exposed when a rare or locally distributed species is encountered I would like to take this opportunity to remind those indulging in this absorbing hobby that such plants are, in all probability, maintaining a precarious existence and to gather more specimens than one really needs may very well be the means of hastening their extinction. The mere fact that they are so

rare, or have such a restricted range, is an almost infallible indication that it will prove extremely difficult, if not impossible, to reproduce the ecological conditions required to maintain them in health. That being so it would not only be a waste of time but wanton vandalism to collect more than an odd specimen or two.

Let me give you an example of the sort of thing I would beg you to refrain from. While staying in a Scottish hotel, one morning I saw a woman come into the lounge with a basket filled to its brim with plants of *Primula scotica* which she had just uprooted from one of the very few colonies in the locality. When I asked her what she intended doing with so many specimens she glibly replied, "Why, of course, I'm going to make a bed of them in my garden at Woking". Were many other visitors to follow the example of that misguided woman it would, of course, only be a question of time before that all too small colony was exterminated—a fate which has already befallen our slipper orchid in many parts of England.

Despite my thirty years' experience of collecting plants in many parts of the world I still find it almost impossible to predict with any degree of certainty whether an unknown species is going to prove hardy or not. But during that time I have at least learnt to recognize *some* of the meteorological and other conditions which will almost certainly inhibit a plant's survival in England. Before discussing these I should, perhaps, make it quite clear what exactly I mean by the word "hardy". The commonly accepted interpretation of the term is that it signifies a species' ability to resist cold. But there are, of course, many other factors besides cold which have to be taken into consideration and I therefore propose to employ the word here in a far wider sense, namely, to indicate a plant's capacity to withstand *all* the vagaries of our English climate, be they dampness or dryness, heat or cold. In short, when I say that a species is hardy, I wish it to be understood that I have proved it to be amenable to outdoor culture in my garden in Kent, assuming, of course, that I have given it a suitable site. That is always of vital importance, for if a plant be placed in an uncongenial spot its subsequent death will obviously be no proof of its lack of hardiness. For instance, if we were to plant a sun-loving cistus in a wet and shady corner it would succumb no matter what the weather conditions were, and so would a rhododendron or a heather if we tried to grow them on a limy soil.

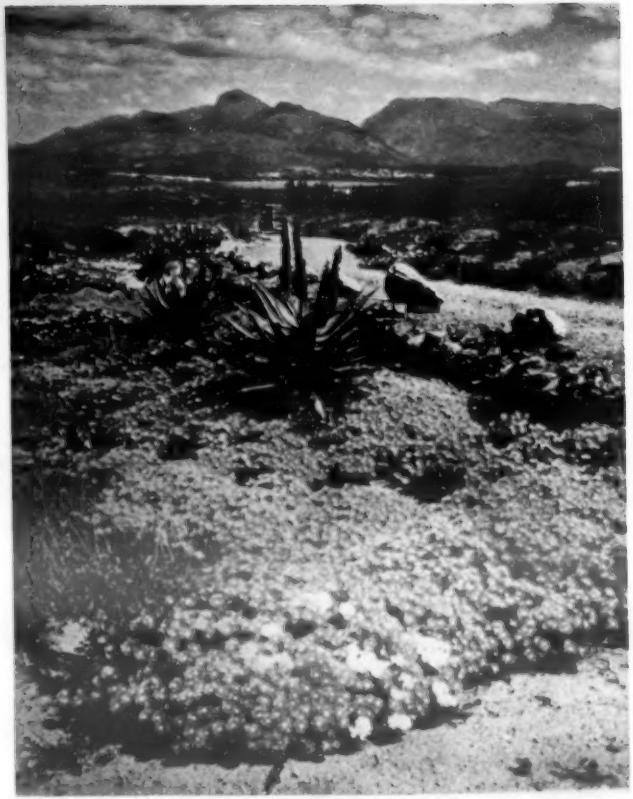
Of one thing I am convinced, namely that an ample supply of moisture, be it in the form of a constantly damp environment or of an abundant rainfall, if easily accessible to the species during the spring and summer seasons, is far more likely to induce hardiness in a plant than is a cool or temperate climate. In other words humidity, if available at those times of the year, rather than temperature, is the factor most likely to endow a plant with a constitution to enable it to withstand our climatic conditions. *Iris pseudacorus* serves to illustrate my point.



Photo, Satour

SPRING FLOWERS IN SOUTH AFRICA

FIG. 117—Kirstenbosch Botanical Gardens, showing lily ponds in foreground and part of Table Mountain behind (See p. 432)



Photos, Satour

FIG. 118—Mesembryanthemums in the Caledon Gardens

(See p. 434)

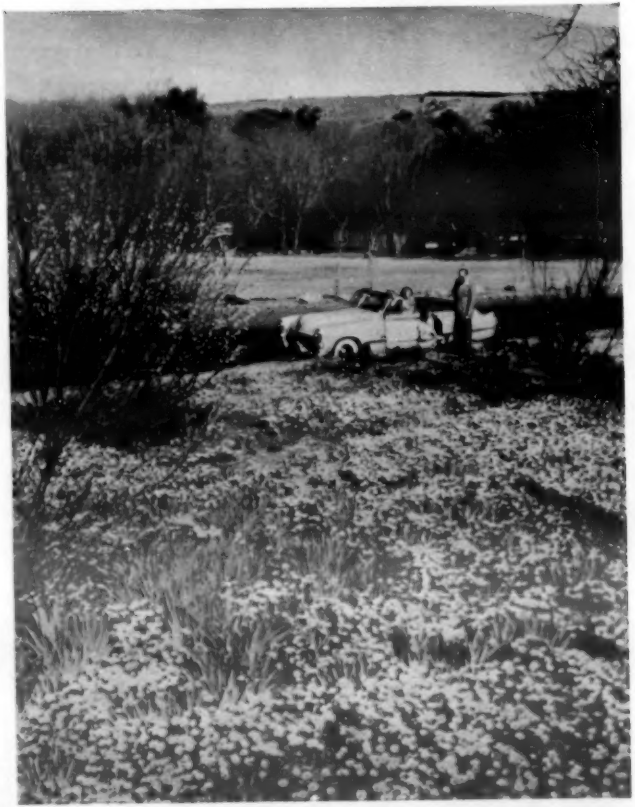


FIG. 119—Spring flowers in the Fountains Valley, near Pretoria

(See p. 434)

Photos, Satour

FIG. 120—Protea species (See p. 437)

FIG. 121—Aloe species

FIG. 122—Agave species growing by the roadside in South Africa

Photos, Satour

FIG. 123—Agapanthus in a Cape Garden

Photo, Satour

FIG. 124—Mesembryanthemums in the Caledon Gardens (See p. 434)

Photo, Sir Frederick Stern

FIG. 125—*Crinum graminicola* on the veldt near Johannesburg (See p. 438)

Photos, Collingwood Ingram

SOME PLANT-HUNTING EXPERIENCES

FIG. 126—*Crinum moorei* growing in a pasture in Natal, shunned, perhaps because it is poisonous, by grazing animals. This species has proved hardy in Kent.

FIG. 127—The Azorean Tree Heath—*Erica azorica*—growing at sea-level. This shrub has proved hardy in Kent (See p. 448)

FIG. 128—Examining a plant of *Cistus palhinhaii* on Cape St. Vincent, South-West Portugal. Note the very compact rounded habit of the plant in its native habitat (See p. 439)

Photos, Collingwood Ingram

FIG. 129—A Kniphofia species growing with its roots in water, on the Drakensberg Mountains, Natal. Hence, apparently, the ease with which this genus may be cultivated in England

species has proved hardy in Kent.

Photo, J. E. Downward

FIG. 130—*Hosta elata* **A.M.** July 17, 1956. Shown by the Director, Royal Botanic Gardens, Kew (See p. 459)

I have encountered this iris growing just as happily in the sun-warmed swamps of Andalusia as in the chilly moorland bogs of an Orcadian island some 2,000 miles nearer the North Pole. Another example is to be found in *Cyrtanthus flanaganii*, a bulbous plant which I collected in the mountains of Natal only about 1,600 miles south of the Equator. No doubt because it was growing naturally in a water-logged soil, and therefore accustomed to dampness, this species has proved completely hardy in my garden where on occasions it has been subjected to temperatures as low as 22° below freezing point.

Let us now consider the flora of a country enjoying an adequate rainfall, more or less comparable in quantity to that of our own. If that rainfall be not evenly distributed over the year, as is roughly the case in England, *the period at which it falls is of vital importance*. This is due to the fact that rain normally controls a plant's season of activity. Should that season of growth, owing to lack of moisture, not coincide with that of our own vegetation (which, of course, is mainly in the spring and summer months), plants from such areas are very unlikely to succeed in our climate. This explains why species indigenous to districts having rainy winters and droughty summers are, unless they happen to be bog plants, almost invariably difficult to manage in England, the reason being that they will have acquired (if the region be a temperate one), an ineradicable habit of growing throughout the cooler and damper winter months and then, after flowering in early spring, of resting during the arid summer that follows; that is to say, they have become endowed with a fixed vegetative rhythm exactly opposite to that of our native plants. This sequence of activity and dormancy is very pronounced in most of the Cape flora and is especially marked in the majority of its bulbous species: consequently though they may come from a cool mountain district they will mostly prove intolerant of outdoor culture in England. To a lesser degree these remarks apply equally to the lowland floras of the Mediterranean Basin where, likewise, the bulk of the year's rain falls during the winter months.

Where the reverse conditions prevail, namely in areas where most of the precipitation occurs in summer and the winters are relatively dry, plant growth will normally correspond with that of our own vegetation. Species from such areas will, therefore, stand a much better chance of surviving in our climate, even though the mean annual temperature of their native habitat be appreciably higher than that of England. Until I had concrete proof of this I was much puzzled by apparent anomalies in the hardiness of some of the plants I collected in South Africa. For instance, several of the species I brought back from Natal and the Transvaal, where the bulk of the rain falls in summer, have thrived out of doors when most of those I gathered in the Cape Province, although derived from considerably cooler localities, have died, this being undoubtedly due to the fact that in the last-named colony winter is definitely the wettest time of the year.

Further evidence that rainfall exercises a greater influence on a plant's hardiness than temperature, was forthcoming after a trip I made to the island of San Miguel in the Azores. As this island is entirely frost-free (in fact, the lowest winter temperature on record is 42° F.) and possesses a climate hot enough to permit the culture of tea, oranges and bananas, one would naturally suppose its native flora would be tender everywhere in England. This has not proved to be the case. Presumably, because an ample rainfall has permitted a vegetative rhythm similar to that of our own flora, several of the species I brought home from that island have, greatly to my surprise, proved completely hardy in my garden. Noteworthy examples of this are the wild form of the tropical avocado pear, *Persea indica*; the endemic tree heath, *Erica azorica* (Fig. 127), and the evergreen box-like shrub, *Myrica faya*. All of these have survived unharmed by temperatures 30° below anything they would have to endure in their native land.

As one might expect, countries enjoying a relatively cool temperate climate, coupled, of course, with an adequate and a more or less evenly distributed rainfall, have proved by far my most profitable hunting grounds. I have no doubt it is because these conditions prevail on the Japanese island of Honshu, that practically all the trees and shrubs I collected there have thrived with me and, I suppose, for much the same reason so have most of those I gathered in northern Portugal and the north-western corner of Spain.

It should not be inferred from what I have said that humidity in itself is inducive to hardiness: on the contrary, if it tends to produce lush growth at an inappropriate season it will render a plant more susceptible to frost damage than would be the case if, through excessive dryness, it has been obliged to remain in an inactive state. In other words, when an unaccustomed abundance of moisture excites growth at an abnormal time, namely in late autumn or before winter has finally ended, it will reduce, rather than increase, a plant's power of resistance to cold. If, on the other hand, the period of its incidence encourages spring and summer activity and does not interfere with the plant's winter dormancy, the more humid the conditions prevailing in a plant's native habitat the greater will be the chances of its proving hardy in England.

PESTS AND DISEASES:

FRUIT SPRAYING CALENDAR

The following spraying calendar has been designed to meet the requirements of the amateur horticulturist.

In the table, the stage of the buds at the time for spraying is given in brackets after the "approximate" date at which each occurs. If two or more substances are recommended at a given time, it will be necessary to apply only a single spray, because care has been taken to recommend materials which are compatible. Where no percentage is given the insecticides and fungicides should be diluted according to makers' instructions.

APPLE

DECEMBER–JANUARY (Dormant)

5 per cent. tar oil. Apple once every four years to control aphids, scale insects and apple sucker.

APRIL (Bud Burst to Green Cluster)

DDT-BHC combined wash to control caterpillars of winter moth group, tortricid caterpillars, aphids, apple capsid, apple sucker and scale insects. Add 2½ per cent. lime sulphur (with spreader)* or Captan to this wash for control of scab.

APRIL (Pink Bud)

2½ per cent. lime sulphur (with spreader)* or Captan against scab. If woolly aphid is a problem add a succinate wetting compound.

MAY (Petal Fall)

BHC against apple sawfly. 1 per cent. lime sulphur (with spreader)† or Captan against scab.

MID-JUNE (Fruitlet)

First application of Chlorbenside against red spider mite. Captan or dispersible sulphur against scab if necessary.

FIRST WEEK JULY

Second application of Chlorbenside. Add DDT for the control of codling moth.

* * *

PEAR

DECEMBER–JANUARY (Dormant)

5 per cent. tar oil. Apply once every four years against aphids.

MARCH (Green Cluster)

Captan against scab.

* The varieties 'Stirling Castle' and 'St. Cecilia' should not be sprayed with lime sulphur.

† 'Lane's Prince Albert', 'Beauty of Bath', 'Rival', 'Belle de Boskoop', 'Lord Derby' and 'Newton Wonder' are sometimes sulphur shy and should not be sprayed post blossom with lime sulphur.

APRIL (Early White Bud)
DDT miscible (emulsion) to control aphids, pear midge and tortricid caterpillars. Add Captan for scab.

APRIL–MAY (Petal Fall)
Captan against scab.

* * *

PLUM AND DAMSON

DECEMBER–JANUARY (Dormant)
5 per cent. tar oil against aphids.

MARCH (Bud Breaking to Bud Burst)
DDT against caterpillars if necessary.

MAY (Cot-split)
Chlorbenside against red spider mite. Add BHC against sawfly if necessary.

* * *

CHERRY (SWEET AND SOUR)

DECEMBER–JANUARY (Dormant)
5 per cent. tar oil against black aphid.

MARCH–APRIL (Bud Breaking to Bud Burst)
DDT against caterpillars.

* * *

PEACH, NECTARINE AND ALMOND

DECEMBER (Dormant)
5 per cent. tar oil against aphids and scale insects.

FEBRUARY–MARCH (Bud Swelling)
3 per cent. lime sulphur (with spreader) or colloidal copper or Bordeaux mixture against peach leaf curl disease.

EARLY MAY
Chlorbenside against red spider mite. Repeat if necessary.

* * *

CURRANTS

DECEMBER–JANUARY (Dormant)
5 per cent. tar oil against aphids.

APRIL (Pre-blossom "Grape Stage" of blackcurrants)
2 per cent. lime sulphur against gall mite (big bud). Bushes badly affected should be dug up and burnt.

LAST WEEK OF APRIL
Spray with DDT against blackcurrant midge. Repeat two weeks later. Add chlorbenside to these sprays to prevent build-up of red spider mite.

* * *

GOOSEBERRY

DECEMBER–JANUARY (Dormant)

5 per cent. tar oil against aphids.

APRIL (Pre-blossom)

2½ per cent. lime sulphur against American Gooseberry mildew.*

LATE APRIL

DDT against Gooseberry sawfly. Repeat later if necessary against second and third generations. If control is required when fruit is ripening, derris should be used instead.

MAY (Post-blossom)

Spray as required with washing soda (½ lb. to 2½ gallons of water). Add spreader.

* * *

RASPBERRY

DECEMBER–JANUARY

5 per cent. tar oil against aphids.

MARCH (Bud Burst)

6 per cent. lime sulphur (with spreader) or colloidal copper against cane spot.

MAY (Immediately Pre-blossom)

Colloidal copper against cane spot.

JUNE (ten days after flowering)

Derris against raspberry beetle.

* * *

LOGANBERRY, CULTIVATED BLACKBERRY, ETC.

DECEMBER–JANUARY

5 per cent. tar oil against aphids.

MID-MAY

Colloidal copper against cane spot.

EARLY JULY (ten days after flowering)

Derris against raspberry beetle. Add colloidal copper against cane spot.

THIRD WEEK JULY

Colloidal copper against cane spot. Add further spray of derris against raspberry beetle if required.

* * *

STRAWBERRY

LAST WEEK APRIL

Nicotine against aphids if necessary.

* Most yellow-fruited varieties are sulphur shy and should not be sprayed with lime sulphur, but may be sprayed from time to time with ½ lb. washing soda (with spreader) to 2½ gallons of water.

EARLY MAY (Immediately Pre-blossom)

2 per cent. lime sulphur against mildew. Then sulphur dusting at intervals.

LATE MAY (Early Petal Fall)

Captan against botrytis. Repeat two or three times at ten-day intervals.

* * *

Greasebanding

The object of applying grease to the trunks of fruit trees is to prevent the wingless females of the winter moth group from ascending them in order to deposit eggs on the twigs and spurs. The old practice of "greasebanding" has now been replaced by the application of vegetable greases direct to the trunk. The older method had the disadvantage that insects were able to by-pass the band by crawling beneath it. Greases of vegetable origin are not harmful to the bark, even to that of young trees including Cox. On no account should animal greases be applied direct to the trunk, otherwise irreparable damage will result.

The disadvantage of using either method is that beneficial predators, some of which ascend and descend the trunk, are also killed. Therefore the practice should be limited to large standard trees or to those on which spraying is not feasible. In any case, it is necessary to use greases on apple and cherry trees only. The grease should be in position by mid-October.

Sackbanding

Some degree of control of codling moth and red plum maggot can be obtained by tying pieces of sacking or corrugated paper round the trunks in July, to provide hibernation quarters for the caterpillars. The band should be of double thickness, 4 to 6 inches wide and placed just below the crotch. The sacking must be removed and burnt in the autumn. The corrugated cardboard bands may be left in position to allow birds to work them.

PLANTS AND PROBLEMS—XXVIII

TOMATO LEAF MOULD

Question. The tomato plants in my small greenhouse have suffered from Leaf Mould disease and I would like to know how to prevent it occurring next year.

Answer. Leaf Mould disease on tomatoes (*Cladosporium fulvum*) is fairly common and is almost certain to occur in badly ventilated greenhouses. The disease is encouraged by warm humid conditions and it is important to provide good ventilation and to be careful with watering so as to avoid excessive humidity. At the same time do not allow the plants to suffer from lack of water as plants which are checked are more likely to be severely affected.

If the plants are growing in the ground the lower leaves should be removed as the bottom trusses ripen and are picked as this will help in encouraging circulation of air. Spraying against the disease should be started early and certainly as soon as the slightest sign of infection is noticed on the lower leaves. For this colloidal copper (at half strength for greenhouses) can be used but recently the modern fungicide called Zineb has given good results against Leaf Mould on tomatoes. The spray may need to be repeated and it is important to treat the undersurfaces of the leaves as well as the upper.

After an attack such as you describe you should disinfect the greenhouse if it can be kept empty for a week or two. This can be done with cresylic acid or with any good disinfectant sprayed over the inside of the house with the doors and windows open. The house is then closed up for two days after which it should be opened and well aired for a week or two. This treatment is necessary because the parasitic fungus causing Leaf Mould has such resistant spores.

THE THORNLESS LOGANBERRY

Question. In spite of a liking for the fruit I have always refrained from growing loganberries as they are so awkward and unpleasant to handle. However I am told there is now a thornless form available and would like to know more about it.

Answer. The thornless loganberry is a very good fruit and can be recommended. From our experience under Wisley conditions it is not quite so vigorous as the ordinary loganberry and this may be an advantage for the small garden. It crops well and for a considerable period and is of good quality and flavour. A number of the leading fruit nurserymen are now growing this novelty and it should not be too difficult to obtain.

HARDY FRUITS—LIMING

Question. I have been in the habit of applying lime around my fruit trees and bushes every two or three years. A friend now tells me that this is not normally necessary and may in fact lead to deficiency troubles. Is this true?

Answer. Your friend is perfectly correct. Most of our fruits prefer slightly acid soil conditions, which can soon be upset by liming, particularly when regular applications are made. Only when the reaction (pH) of a soil is below 5·5 should liming be considered necessary, a pH of 6·5 being ideal for most fruits. If there is any doubt about the reaction of the soil then this can be checked with a simple testing outfit which is usually obtainable through the larger horticultural sundriesmen. Readings below 6·8 signify an acid soil and those above 7·2 an alkaline one.

REDUCING THE SIZE OF A HEDGE

Question. My old, large garden is surrounded by high hedges to afford privacy. Unfortunately, the annual trimming is a big problem and to

save our gardener's time I thought of reducing the size of all of them. The main hedges are of privet—some 8 feet high and rather thick. When can I cut them down and what is the best way to go about it?

Answer. Undoubtedly, hedge trimming takes a lot of time and a considerable saving would be made by reducing the size of privet to, say, 3 feet. Subsequently the hedge can be allowed to grow and kept trimmed at 4 feet but, in the initial reduction, the hedge should be cut down about a foot lower than the height to which it is to be kept trimmed. When the top is taken off, the sides can also be reduced drastically to give a width of a foot. The best time to cut any hedge in this manner is in the early spring.

For doing this job, a garden line should be used to give the height to which the hedge is to be reduced and the old wood can be easily and quickly removed by cutting the branches with a pair of long-handled secateurs.

NOTES FROM FELLOWS

Endymion (*Scilla*) *hispanicus*

THE note on p. 365 of the August issue regarding this plant interested me. About twenty years ago an out-size *Scilla hispanica* occurred here, the leaves being broader and the flowering stem attaining 28 inches. The blossoms, the size of an average thimble at the base, were pale blue with darker lines (as described on p. 369) and a remarkable feature about these was that some of the largest were produced in pairs. I sent specimens of this plant to the late MR. FRED J. CHITTENDEN, then (May, 1937) Technical Adviser at Vincent Square, and he replied thus: "I have never seen *Scilla campanulata* so large in my life, nor do I recall one with a branched inflorescence. In spite of its size it is not ungainly and I hope you will watch it to see whether the plant behaves in the same way next year. The leaves are just about double the width of the usual type. Thank you very much for letting me see it."

Well, the war came along, and though the plant retained its size and vigour for some years, congestion of the bulbs and neglect ultimately had the inevitable effect. Even so, it is still very much superior to the type in flower, leaf and sturdiness of stem, and I have no doubt that it would respond to division by repeating the characteristics of the original.

It has never produced any seed, but increase by bulbous offsets is prodigious. Since this plant appeared another cropped up about four years ago. This has even larger flowers of a darker blue, but the spike is shorter, and the leaves still wider. Oddly enough, this one has never increased at all, a single stem only rising each year. I would doubt the suggestion that these "freaks" are hybrids with *S. nutans* (*nonscripta*) for the flowers are never borne on one side of the stem only, and there is no inclination on the part of the inflorescence to bend over at the tip as in the common bluebell.

A. T. JOHNSON

WISLEY TRIALS, 1956

DELPHINIUMS

The trial of delphiniums was inspected by the Joint Delphinium Committee of The Royal Horticultural Society and the British Delphinium Society on July 6 and 12, 1956, and on its recommendation The Royal Horticultural Society and the British Delphinium Society have made the following awards to delphiniums as varieties for garden decoration.

The number in brackets after the description of the variety was that under which it was grown in the trial.

ANONA. (Raised, introduced and sent by Messrs. Blackmore & Langdon, Twerton Hill Nursery, Bath, Somerset.) **F.C.C.** July 12, 1956. Described R.H.S. JOURNAL, **81**, page 39 (**A.M.** 1955). [25]

ROYALIST. (Raised, introduced and sent by Messrs. Blackmore & Langdon.) **F.C.C.** July 6, 1956. Described R.H.S. JOURNAL, **78**, page 421 (**A.M.** 1953). [56]

SILVER MOON. (Raised, introduced and sent by Messrs. Blackmore & Langdon.) **F.C.C.** July 6, 1956. Described R.H.S. JOURNAL, **81**, page 40 (**A.M.** 1955). [14]

STARTLING. (Raised, introduced and sent by Messrs. Blackmore & Langdon.) **F.C.C.** July 12, 1956. Described R.H.S. JOURNAL, **81**, page 40 (**A.M.** 1955). [73]

FREDERICK GRISEWOOD. (Raised, introduced and sent by Messrs. Blackmore & Langdon.) **A.M.** July 12, 1956. An *elatum* variety. Described R.H.S. JOURNAL, **75**, page 32 (**H.C.** 1949). [31]

KINGSWOOD. (Raised, introduced and sent by Messrs. Blackmore & Langdon). **A.M.** July 12, 1956. Described R.H.S. JOURNAL, **81**, page 40 (**H.C.** 1955). [22]

MARION. (Raised, introduced and sent by Messrs. Blackmore & Langdon.) **A.M.** July 12, 1956. Described R.H.S. JOURNAL, **81**, page 40 (**H.C.** 1955). [41]

ARTIST. (Raised, introduced and sent by Messrs. Blackmore & Langdon.) **H.C.** July 12, 1956. An *elatum* variety. Plant 6½ feet tall; flower spike 2½ feet long, 4½ inches diameter at base, bluntly pointed, flowers closely spaced, many side spikes; flower 2 inches diameter, semi-double, on a fairly long stalk; sepals near Spectrum Blue (H.C.C. 45/2) slightly tinged at base Roseine Purple (H.C.C. 629/3); eye creamy-white. [39]

LOLA. (Raised, introduced and sent by Messrs. Blackmore & Langdon.) **H.C.** July 6, 1956. An *elatum* variety. Plant 6 feet tall; flower spike 2½ feet long, 7 inches diameter at base, tapering, flowers closely spaced, many side spikes; flower 3½ inches diameter, semi-double, on short stalk; outer sepals Spectrum Blue (H.C.C. 45/2); inner sepals Cobalt Violet (H.C.C. 634/2) flushed at centre with Spectrum Blue (H.C.C. 45/2); eye white. [76]

PURPLE RUFFLES. (Raised, introduced and sent by Messrs. Blackmore & Langdon.) **H.C.** July 12, 1956. An *elatum* variety. Plant 6½ feet tall, flower spike 3 feet long, 8½ inches diameter at base, tapering, flowers closely spaced, many side spikes; flower 3 inches diameter, semi-double, on long stalk; outer sepals Amethyst Violet (H.C.C. 35/1), inner sepals Amethyst Violet (H.C.C. 35/1) overlaid along the centre with Spectrum Blue (H.C.C. 45); eye purple. [70]

SORRENTO. (Raised, introduced and sent by Messrs. Blackmore & Langdon.) **H.C.** July 6, 1956. An *elatum* variety. Plant 7 feet tall; flower spike 3 feet long, 5 inches diameter at base, bluntly pointed, flowers closely spaced, many side spikes; flower 2½ inches diameter, semi-double, on long stalk; sepals Cornflower Blue (H.C.C. 742/1) with flush round eye of Bishop's Violet (H.C.C. 34/2); eye white. [40]

HEUCHERAS

The Council of The Royal Horticultural Society has made the following award to a heuchera after trial at Wisley, on the recommendation of the Floral Committee A.

The number in brackets after the description of the variety was that under which it was grown in the trial.

SCINTILLATION. (Raised by Mr. Alan Bloom, introduced and sent by Messrs. Bloom's Nurseries Ltd., Bressingham, Diss, Norfolk.) **H.C.** June 7, 1956. Plant 8 inches high, 21 inches across, compact and spreading, flowering very freely; flower stalk 18 inches long, strong, erect, inflorescence 9 inches long, 3½ inches diameter; flower ⅜ inch diameter, single, Crimson (H.C.C. 22/2) deepening at edges to Crimson (H.C.C. 22). [1]

PERENNIAL LUPINS

The Council of The Royal Horticultural Society has made the following awards to perennial lupins after trial at Wisley, on the recommendation of the Floral Committee A.

The number in brackets after the description of the variety was that under which it was grown in the trial.

ALICIA PARRETT. (Raised, introduced and sent by Messrs. Bakers Nurseries Ltd., Codsall, Wolverhampton.) **A.M.** June 7, 1956. Plant 2½ feet high, 2 feet spread, vigorous, not woody; foliage large bright green; inflorescence 18 inches long, 3 inches diameter at base; standard creamy-white tinged at centre Dresden Yellow (H.C.C. 764/1); wings creamy-white. [5]

FIREDRAKE. (Raised, introduced and sent by Messrs. Bakers Nurseries Ltd.) **H.C.** June 7, 1956. Plant 2¾ feet high, 2 feet spread, vigorous, not woody; foliage medium size, medium green; inflorescence 18 inches long, 2¼ inches diameter at base; standard Rhodonite Red (H.C.C. 0022) overlaid Erythrite Red (H.C.C. 0027); wings Rhodonite Red (H.C.C. 0022) changing with age to Spinel Red (H.C.C. 0023). [13]

PYRETHRUMS

The Council of The Royal Horticultural Society has made the following awards to pyrethrums after trial at Wisley, on the recommendation of the Floral Committee A.

The number in brackets after the description of the variety was that under which it was grown in the trial.

ALLUREMENT. (Raised, introduced and sent by Messrs. Kelway & Son Ltd., Langport, Somerset.) **A.M.** June 7, 1956. Described R.H.S. JOURNAL, **80**, page 526 (**H.C.** 1955). [5]

CRIMSON KING. (Raised and sent by Mr. H. Robinson, M.B.E., Victoria Nursery, Burbage, Hinckley, Leicester.) **A.M.** June 7, 1956. Plant very vigorous, compact, flowering very freely; flower stem 3½ feet long, erect,

very stout; flower 3¾ inches diameter, single, ray florets 1½ inches long, broad, horizontal with tips drooping, a deep rich shade of crimson near Tyrian Purple (H.C.C. 727); disc ½ inch diameter. [34]

WHITE MADELEINE. (Raised and introduced by Messrs. R. H. Bath Ltd., The Floral Farms, Wisbech, Cambs., and sent by Messrs. Kelway & Son Ltd.) **A.M.** June 7, 1956. Plant vigorous, spreading, flowering freely; flower stem 2 feet long, erect; flower 3 inches diameter, double, ray florets 1 inch long, broad, white, young florets cream. [15]

BEAU GESTE. (Raised, introduced and sent by Messrs. Kelway & Son Ltd.) **H.C.** May 30, 1956. Plant vigorous, fairly compact, flowering freely; flower stems 3 feet long, fairly erect; flower 4 inches diameter, single, ray florets 1¼ inches long, broad, horizontal, Fuchsia Purple (H.C.C. 28) overlaid with Tyrian Purple (H.C.C. 727); disc ¾ inch diameter. [14]

PINK BEAUTY. (Raised and sent by Mr. H. Robinson, M.B.E.) **H.C.** June 7, 1956. Plant vigorous, compact, flowering freely; flower stem 2½ feet long, erect, stout; flower 3¾ inches diameter, single, ray florets 1¼ inches long, broad, horizontal with tips drooping, Magenta (H.C.C. between 27/3 and 27/2); disc 1⅛ inches diameter. [33]

RHODODENDRONS

The Council of The Royal Horticultural Society has made the following awards to rhododendrons after trial at Wisley on the recommendation of the Rhododendron and Camellia Committee.

The number in brackets after the description of the variety was that under which it was grown in the trial.

ANNIE LAURIE. (Raised, and sent by Mr. L. F. Frisbie, Puyallup, Washington, U.S.A. and introduced by Mr. Greg McKinnon, Sumner, Washington, U.S.A.) **H.C.** May 29, 1956. A deciduous azalea. Plant 2¾ feet high, 5 feet spread, vigorous, lax habit, flowering very freely; leaves 2¾ inches long, $\frac{9}{10}$ inch wide, medium glossy green; flower truss 4 inches across, 2½ inches deep, flattened dome-shaped, eight flowers per truss. Corolla 2¼ inches diameter, 1¾ inches long, open funnel-shaped, margins slightly waved, ground colour French Rose (H.C.C. 520/3) deepening at edges of petals to Carmine Rose (H.C.C. 621/1), blotch at throat of Saffron Yellow (H.C.C. 7/1). Flowering from May 19, 1956. [819]

FARALL YELLOW. (Raised, introduced and sent by Mr. M. Haworth-Booth, Farall Nurseries, Roundhurst, Haslemere, Surrey.) **H.C.** May 29, 1956. A deciduous azalea. Plant 2½ feet high, 4 feet spread, vigorous, flowering freely; leaves 5 inches long, $1\frac{9}{10}$ inches wide, medium green slightly tinged bronze; flower truss 5 inches across, 3½ inches deep, flattened dome-shaped, eleven flowers per truss. Corolla 3 inches diameter, 2 inches long, very open funnel-shaped, margins waved, Chrome Yellow (H.C.C. 601) with blotch at throat of Buttercup Yellow (H.C.C. 5/1). Flowering from May 23, 1956. [110]

HATSU-GIRI. (Sent by Messrs. Knap Hill Nursery Ltd., Woking, Surrey.) **A.M.** May 14, 1956. An evergreen azalea. Plant 2 feet high, 4 feet spread, vigorous, very compact, flowering very freely, flowers either in pairs or threes, corolla 1¼ inches diameter, ⅞ inches long, open funnel-shaped, Mallow Purple (H.C.C. 630). Flowering from May 7, 1956. [547]

MOTHER'S DAY. (Raised and introduced by Messrs. van Hecke, Zevenecken, Germany, and sent by Messrs. W. C. Slocock Ltd., Goldsworth

Nurseries, Woking, Surrey.) **H.C.** May 29, 1956. An evergreen azalea. Plant 1 foot high, 2¼ feet spread, vigorous, compact, flowering very freely, flowers mostly in threes. Corolla 2⅛ inches diameter, 1⅝ inches long, open funnel-shaped, a bright shade of red near Rose Opal (H.C.C. 022). Flowering from May 22, 1956. [193]

SEVERN. (Raised and sent by The Royal Horticultural Society's Gardens, Wisley, Ripley, Woking, Surrey.) **H.C.** May 29, 1956. A deciduous azalea. Plant 4 feet high, 3 feet spread, vigorous, upright, flowering freely; leaves 6½ inches long, 4½ inches wide, glossy medium green; flower truss 6½ inches across, 4½ inches deep, dome-shaped, compact, twelve flowers per truss. Corolla 3¼ inches diameter, 2½ inches long, open funnel-shaped, Dawn Pink (H.C.C. 523/2) deepening at tips of petals and along the mid-ribs to Dawn Pink (H.C.C. 523), blotch on upper petal at throat of Maize Yellow (H.C.C. 607). Flowering from May 23, 1956. [134]

SYLPHIDES. (Raised, introduced and sent by Messrs. Knap Hill Nursery Ltd.) **H.C.** May 29, 1956. A deciduous azalea. Plant 3 feet high, 4 feet spread, vigorous, flowering very freely; leaves 4⅜ inches long, 1⅝ inches wide, glossy medium green tinged bronze; flower truss 6 inches across, 3½ inches deep, flattened dome-shaped, lax, fourteen flowers per truss. Corolla 2⅝ inches diameter, 2½ inches long, open funnel-shaped, a pale shade of pink near Phlox Pink (H.C.C. 625/3) with blotch on lower petal at throat of Buttercup Yellow (H.C.C. 5/1). Flowering from May 22, 1956. [772]

THAMES. (Raised and sent by The Royal Horticultural Society's Gardens.) **H.C.** May 29, 1956. A deciduous azalea. Plant 4 feet high, 3½ feet spread, vigorous, upright, flowering freely; leaves 5 inches long, 2 inches wide, glossy medium green; flower truss 5 inches across, 4 inches deep, dome-shaped, compact, twelve flowers per truss. Corolla 3½ inches diameter, 2½ inches long, open funnel-shaped, margin waved and surface crêped, Neyron Rose (H.C.C. 623/1) veined slightly deeper rose with blotch on upper petal at throat of Apricot (H.C.C. 609/1). Flowering from May 23, 1956. [131]

PLANTS TO WHICH AWARDS HAVE BEEN MADE IN 1956

Carnation 'Monty's Pale Rose' A.M. May 22, 1956, as a variety for both exhibition and market. This perpetual-flowering variety is large-flowered with blooms about 4 inches in diameter. The blooms are full and high with many petals and fair scent and are carried on a long strong stem with a well-shaped calyx. The colour of the blooms is Rhodamine Pink (H.C.C. 527/2) and the fimbriated edges of the petals are of a lighter colour.

Catalpa speciosa A.M. July 17, 1956. The Western Catalpa is a vigorous tree of pyramidal habit, said to be hardier than the more common *C. bignonioides* and flowering two or three weeks earlier. It has ovate, long-acuminate leaves 8 to 10 inches long, and broad, open panicles of flowers. The white corolla has a funnel-shaped tube 1 inch long and a five-lobed spreading limb 2 inches across. The lower lobe

is speckled with maroon and has two faint yellow stripes. Exhibited by The Director, Royal Botanic Gardens, Kew.

Cissus discolor A.M. June 19, 1956. This climbing plant for the warm greenhouse was introduced from Java a century ago. It has an ovate, acute leaf 5 to 6 inches long with cordate base and serrate margins. The underside is of a vinous red colour, the upper surface dark velvety green with silvery-white blotches between the lateral veins. The plant was figured at t. 4763 of the *Botanical Magazine* in 1854. Exhibited by L. Maurice Mason, Esq., Talbot Manor, Fincham, King's Lynn.

Delphinium 'Purple Triumph' A.M. July 3, 1956, as a variety for exhibition. Flower spikes 29 inches long, 5½ inches diameter at base, well proportioned, tapering slightly towards tip, flowers well spaced. Flowers 3 inches diameter, semi-double, on pedicel 2½ inches long, a rich shade of Bishop's Violet (H.C.C. 34), outer florets tipped Aster Violet (H.C.C. 38); spur ¾ inch long, blunt; eye black with yellow hairs. Raised and shown by Messrs. Blackmore & Langdon, Twerton Hill Nursery, Bath.

Deutzia scabra var. staphyleoides A.M. June 19, 1956. An extremely decorative variety of one of the larger and more vigorous species of the genus. The long growths are closely set with lateral branchlets, each of which bears several leaves and a dense panicle, 5 inches long, of single white flowers with pointed petals, giving a somewhat starry appearance. Exhibited by The Director, Royal Botanic Gardens, Kew.

Hosta elata A.M. July 17, 1956. A hardy Japanese herbaceous perennial, valuable for both flowers and foliage. It forms a large and dense group of long-stalked leaves with ovate, undulate, bright green blades sometimes as much as a foot long. The almost erect scape reaches a height of about 2 feet, bearing a dense terminal raceme of nearly forty flowers subtended by pale, green-tinted, ovate bracts. The Pastel Lilac (H.C.C. 437/2) perianth is 2 inches long, narrow-tubular at the base, funnel-shaped above. Exhibited by The Director, Royal Botanic Gardens, Kew (Fig. 130).

Hydrangea paniculata var. praecox A.M. July 17, 1956. This distinct variety flowers about six weeks in advance of the more common, sterile-flowered var. *grandiflora*. It has dark green, elliptic, acuminate leaves 6 inches long. The inflorescence is an elongated panicle, up to 10 inches long, of creamy-white fertile flowers. Each axillary segment of the panicle has two or three sterile flowers 1¾ inches across, with four elliptic white lobes. Exhibited by Mr. M. Haworth-Booth, Haslemere, and the R.H.S. Gardens, Wisley.

Iris 'Green Spot' A.M. May 22, 1956, as a variety for general garden use. Foliage 10 inches long, ¾ inches wide. Flower stems 8 inches tall; branches medium length, at and above the middle of the stem; flowers fairly closely spaced, two per stem. Flowers well proportioned; standard 1½ inches long, 1⅛ inches wide, cupped and upright, ovate, blunt pointed, creamy-white veined pale green, at base veined

brown; falls 2 inches long, 1⅛ inches wide, flaring oblong, cream veined dark bluish-green, at haft veined greenish-yellow. Shown by H. Senior Fothergill, Esq., 12 Abercorn Place, London, N.W. 8.

Iris longipetala A.M. June 5, 1956, as a plant for general garden use. A native of California. Flower stems 18 inches long, up to three flowers per stem, widely spaced. Flower open well proportioned, on pedicel 1¼ inches long; standards 2½ inches long, ½ inch wide, oblong-unguiculate, margins waved and slightly frilled, Methyl Violet (H.C.C. 39/2); falls 3 inches long, 1 inch wide, obovate-unguiculate, spreading and drooping, creamy-white veined Methyl Violet (H.C.C. 39/2) with a stripe of yellow along the mid-rib. Style branches long, narrow, close down on haft, Methyl Violet (H.C.C. 39/2); crest large, white visible on lower half. Shown by G. S. Thomas, Esq., Briar Cottage, West End Woking, Surrey.

Lilium (Bellingham Hybrids) 'Royal Favourite' A.M. July 17, 1956. The Bellingham Hybrids are tall, free-flowering plants of considerable garden value, which, when grown under favourable conditions, soon form bold clumps. This clone has evenly spaced whorls of up to fifteen narrow-lanceolate leaves 5 inches long and about eighteen nodding flowers on long, ascending pedicels. The recurving acuminate perianth-segments measure 3½ by ⅝ inches, and are coloured Chinese Yellow (H.C.C. 606), lightly speckled with maroon. Exhibited from the R.H.S. Gardens, Wisley.

Lilium szovitsianum A.M. July 17, 1956. A vigorous and easily grown species from the Caucasus. It has a strong erect stem often reaching a height of 5 feet or more, clothed with numerous scattered oblong-lanceolate leaves, bearing from one to twenty pendulous flowers with thick and wide recurving perianth-segments approaching Empire Yellow (H.C.C. 603) in colour, more or less spotted on their inner surfaces with small black dots. Exhibited by Major and Mrs. W. G. Knox-Finlay, Keillour Castle, Methven, Perthshire.

Nomocharis mairei F.C.C. June 19, 1956. This species received the **A.M.** in 1932. It is a graceful Liliaceous plant with an erect stem up to 4 feet high bearing several whorls of lanceolate leaves and a terminal raceme of up to ten pendulous flowers on spreading pedicels. The flower is saucer-shaped, 5 inches in diameter, blush-pink heavily spotted with deep crimson. The outer segments are ovate and entire; the inner broader and delicately fringed. Exhibited by Major and Mrs. W. G. Knox-Finlay, Keillour Castle, Methven, Perthshire.

Nomocharis pardanthina candida A.M. June 19, 1956. The plant exhibited had an erect stem 3 feet high bearing whorls of broad-lanceolate leaves 3 inches long and a raceme of twelve flowers. The flowers had broad-ovate white perianth segments 2 inches long, slightly spotted near the yellow-flushed base with maroon. Exhibited by Major and Mrs. W. G. Knox-Finlay, Keillour Castle, Methven, Perthshire.

Paeonia (albiflora × lobata) 'Sophie' A.M. June 19, 1956. An attractive herbaceous hybrid with a flower 5½ inches across composed

of sixteen to twenty obovate petals coloured Rose Madder (H.C.C. 23). Exhibited by Mrs. Gwendolyn Anley, St. George's, Woking.

Philadelphus 'Manteau d' Hermine' A.M. June 19, 1956. This double-flowered variety belongs to the *P.* × *lemoinei* group, and forms a dwarf bush with arching stems bearing many short lateral twigs. Each of these has several small leaves and a cluster of about five double, cup-shaped, narrow-petalled white flowers. Exhibited by L. Maurice Mason, Esq., Talbot Manor, Fincham, King's Lynn.

Philadelphus pubescens A.M. July 3, 1956. A vigorous spreading shrub up to 15 feet in height, sometimes grown under the incorrect names *P. latifolius* and *P. grandiflorus*. The long, arching growths bear ovate-lanceolate, obscurely toothed leaves up to 5 inches long, from the axils of which in the following year they produce lateral sprays of about five white scarcely scented flowers. In the form exhibited the flowers were nearly 2½ inches across. Exhibited by L. Maurice Mason, Esq., Talbot Manor, Fincham, King's Lynn.

Rose 'Allgold' A.M. May 22, 1956. This floribunda variety is the result of a cross between 'Goldilocks' and 'Ellinor Le Grice'. Its medium-sized deep golden yellow flowers of good form are produced in great abundance and they are said to keep their colour well out of doors. Raised, introduced and shown by Mr. E. B. Le Grice, Roseland Nurseries, North Walsham.

Rose 'Mrs. Colville' A.M. June 5, 1956. A hybrid of which one parent is *R. spinosissima*, while the other is thought to be *R. pendulina*. The flowers are 1¾ inches across, and have five round, deeply notched petals of a dark shade of Fuchsine Purple (H.C.C. 28) and buff-yellow stamens. The leaf has nine elliptic, finely serrate leaflets ¾ inch long. Exhibited by Messrs. T. Hilling & Co., Ltd., Chobham, Woking.

Rose eglanteria 'Eos' A.M. June 19, 1956. A seedling Sweet Briar of vigorous, spreading habit. The leaves have seven or nine elliptic, sharply serrate leaflets ½ inch long. The flattish, semi-double flowers, 2 inches across, have three rows of obovate petals coloured Rose Bengal (H.C.C. 25), and are carried singly on very short lateral branchlets. Exhibited by Messrs. T. Hilling & Co. Ltd., Chobham, Woking.

Sambucus racemosa serratifolia aurea A.M. June 5, 1956. A shrub reaching a height of about 12 feet, valued for its coloured foliage. The leaf is made up of about seven leaflets, each of which is 3 or 4 inches long, narrow-lanceolate and deeply and irregularly dissected, in colour Straw Yellow (H.C.C. 604). Exhibited by L. Maurice Mason, Esq., Talbot Manor, Fincham, King's Lynn.

Trachelium caeruleum A.M. July 17, 1956. An erect-growing plant 2 to 4 feet high, for the cool greenhouse. It has dark green, ovate, toothed leaves and large flattish corymbs of minute Aster Violet (H.C.C. 38/2) flowers. Exhibited by L. Maurice Mason, Esq., Talbot Manor, Fincham, King's Lynn.

Trichodiadema densum A.M. May 1, 1956. A low-growing

South African succulent with short stems crowded with fleshy, cigar-shaped leaves 1 inch long, each of which is tipped with a bunch of white, radiating hairs. The flower, on a thick pedicel 1½ inches tall, has a golden centre and forty to fifty linear, spreading, glossy Petunia Purple (H.C.C. 32/1) petals 1 inch long. The plant was figured at t. 1220 of the *Botanical Magazine* in 1809. Exhibited by P. R. Thoday, Esq., 18 Madingly Road, Cambridge.

Viburnum tomentosum 'Rowallane' F.C.C. June 19, 1956. This variety received the **A.M.** on July 14, 1942, and is figured in R.H.S. JOURNAL, **67**, fig. 110. It forms a bush of neat habit, and is less vigorous than the Lanarth variety. The small, creamy, fertile flowers form a peduncled cyme about 2 inches across, around the margin of which are arranged from six to nine snow-white sterile flowers, each 1½ to 2 inches across with four large, rounded segments. The leaves are ovate, up to 2½ inches long, conspicuously veined. Exhibited by Capt. Collingwood Ingram, Benenden, Kent.

CAMELLIAS

Camellia japonica 'Adolphe Audusson' F.C.C. February 28, 1956. A description of this well-known camellia appeared in R.H.S. JOURNAL, **59**, 399. Exhibited by Commissioners of Crown Lands, Windsor Great Park, Berks.

Camellia japonica 'Apollo' A.M. May 1, 1956. On this variety the leaves were typical of the species in shape and size but had some limited variegation. Each flower had fifteen petals, was Semi-Double and coloured a pale shade of Turkey Red (H.C.C. 721/1). The stamens were in a tight, central cluster. On April 28, 1953, a plant under the same name received an award of merit but this was, in fact, *C. japonica* 'Jupiter'. Exhibited by E. de Rothschild, Esq., Exbury House, nr. Southampton.

Camellia japonica 'C. M. Wilson' A.M. February 28, 1956. Without doubt this is an outstanding camellia of distinctive form and colour. It was introduced by the exhibitors from the United States where it arose as a sport of *C. japonica* 'Elegans'. The leaves are typical of the species. Each flower shown was 5 inches across, an Anemone Form of Incomplete Double and coloured Neyron Rose (H.C.C. 623/2), while the veination was a delicate shade of deep pink. Exhibited by Messrs. J. Waterer, Sons and Crisp, Ltd., The Nurseries, Bagshot, Surrey.

Camellia japonica 'Gloire de Nantes' A.M. May 1, 1956. It is stated by the exhibitors that this is a particularly desirable variety for planting out of doors, flowering freely when weather permits, from December to May. The flowers are 4 inches across and are the Paeony Form of Incomplete Double with a few stamens visible and the remainder petaloid. The petals are a bright shade of Neyron Rose (H.C.C. 623/1). Exhibited by Commissioners of Crown Lands, Windsor Great Park, Berks.

RHODODENDRONS

Rhododendron (Azalea) 'Golden Sunset' A.M. May 22, 1956. A bright-flowered azalea with large trusses of bloom containing, in some cases, as many as thirty flowers. The corolla was 3¼ inches across and coloured Mimosa Yellow (H.C.C. 602/1) while the upper petal was densely spotted with orange. Exhibited by Messrs. J. Waterer, Sons and Crisp, Ltd., The Nurseries, Bagshot, Surrey.

Rhododendron basilicum Forrest 24139 A.M. May 1, 1956. A species from the Falconeri Series and of which it is the only member with flat, more or less winged petioles. It is found naturally in rhododendron forests in Western Yunnan where it makes a shrub or small tree up to 30 feet high. The trusses shown were large ones made up of about twenty-six flowers ventricose campanulate in shape. In colour, the corolla was pale whitish-cream with a small crimson blotch in the throat, while on the outside there was an irregular staining of limited, pale, dull-crimson markings. Exhibited by Col. The Lord Digby, D.S.O., M.C., T.D., Minterne, Dorchester, Dorset.

Rhododendron ('Idealist' × 'Naomi') 'Emerald Isle' A.M. May 22, 1956. An unusual break in colour is found in this rhododendron for the open campanulate corolla is coloured Chartreuse Green (H.C.C. 663/1) with the throat and central veination stained Chartreuse Green (H.C.C. 663/2). Nine flowers of this colour compose the loose, upright truss. Exhibited from the R.H.S. Gardens, Wisley, Ripley, Surrey.

Rhododendron (griersonianum × 'Pauline') 'Grenadine' A.M. May 22, 1956. This is a strong-growing plant of vigorous habit. It has a large truss composed of nine flowers which are open campanulate in shape and coloured Cherry (H.C.C. 722) with deep brown spotting originating in the throat. The hybrid was raised by the late MR. LIONEL DE ROTHSCHILD and it shows the distinct characteristics of *R. griersonianum* in its flowers and foliage. Exhibited by Commissioners of Crown Lands, Windsor Great Park, Berks.

Rhododendron (calophytum × lacteum) 'Jocelyne' F.C.C. April 17, 1956. A description of this hybrid appeared in R.H.S. JOURNAL, **79**, 415. Exhibited by E. de Rothschild, Esq., Exbury House, nr. Southampton.

Rhododendron (johnstoneanum double form × tephropeplum) 'Johnnie Johnston' A.M. May 1, 1956. On this unusual hybrid the flowers are semi-double with the large majority of stamens petaloid. Three or four flowers make up a truss and in colour the flowers are a variable shade of Tyrian Rose (H.C.C. 24/3) with irregular staining of a darker shade (H.C.C. 24/2). The leaves are 4½ inches long by 1¾ inches wide, beneath scaly; pedicel 1 inch long, red-stained and scaly. Exhibited by Lieut.-Col. Sir Edward Bolitho, K.B.E., D.S.O., Trengwainton, Heamoor S.O., Penzance.

Rhododendron johnstoneanum (double form) A.M. April 17, 1956. On this form the leaves are obovate-elliptic, margins ciliate and

the underside scaly; the petiole also is ciliate and scaly. Each truss is made up of two or three flowers on long, stout, scaly pedicels. The corolla is 3 inches long by 4 inches across, is completely double; in colour it is white with the vestige of an orange tinge in the throat. Exhibited by Commissioners of Crown Lands, Windsor Great Park, Berks.

Rhododendron (Limerick g.) 'Piccaninny' A.M. May 22, 1956. This hybrid is one of the progeny from the crossing of *R.* 'Britannia' and *R. dicroanthum*. It has a lax, drooping truss made up of about seven flowers on each of which the calyx is petaloid and up to 1½ inches long. The corolla is tubular-campanulate and coloured a shade of orange, tinged at the margins of the lobes with a very pale shade of Cherry (H.C.C. 722/1). Exhibited by The Earl of Limerick, K.C.B., D.S.O., T.D., Chiddingly, West Hoathly, East Grinstead.

Rhododendron morii A.M. May 1, 1956. Leaves on this species are oblong-lanceolate in shape and somewhat leathery. The inflorescence is in the form of a loose, racemose corymb of ten to fifteen flowers. Each wide, semi-drooping corolla has large lobes and is white with a crimson blotch and some crimson spotting. Exhibited by Capt. Collingwood Ingram, F.L.S., V.M.H., The Grange, Benenden, Cranbrook, Kent.

Rhododendron (elliottii × wattii) 'Morvah' A.M. May 22, 1956. A hardy plant of vigorous habit and one with a singularly large, globular truss composed of twenty closely-packed flowers. The campanulate corolla is coloured Turkey Red (H.C.C. 721/3) with limited, indistinct spotting on the upper lobes. Underneath, the leaves show a sparse tomentum and are of a coriaceous nature. Exhibited by Lieut.-Col. Sir Edward Bolitho, K.B.E., D.S.O., Trengwainton, Heamoor S.O., Penzance.

Rhododendron (discolor × 'Pink Pearl') 'Mistake' A.M. June 19, 1956. When exhibited this plant was shown under the varietal epithet of 'Pink Brocade' but this name was not acceptable to the International Registration Authority and was therefore changed subsequently. The funnel-shaped flowers were 2¼ inches long by 4 inches wide and pale pink in colour, suffused with a varying shade of Rose Madder (H.C.C. 23/3) together with olive green spotting and light markings at the base of the upper three lobes. Exhibited by Brigadier J. M. J. Evans, C.B.E., M.C., Wishanger, Churt, Surrey.

Rhododendron (fortunei × 'Mrs. E. C. Stirling') 'Pink Rosette' A.M. May 22, 1956. On this plant about fourteen large flowers form a heavy, globular truss. The corolla is flat campanulate and has a cluster of petaloid stamens in the centre. In colour the flower is pinkish-white suffused with Fuchsine Pink (H.C.C. 627/3) and the lobes tinged a slightly darker shade. Exhibited by Brigadier J. M. J. Evans, C.B.E., M.C., Wishanger, Churt, Surrey.

Rhododendron pseudochrysanthum A.M. May 1, 1956. An outstanding exhibit of this plant was shown, for it is a most attractive rhododendron, being of trim habit and naturally free flowering. The

loose truss is composed of nine flowers on each of which the deep funnel-shaped corolla is white flushed with varying shades of pale pink and the throat spotted with crimson. The leaves appear crowded on the plant, are thick and rigid; the upper surface markedly floccose, the underside glossy and the mid rib prominent. Exhibited by E. de Rothschild, Esq., Exbury House, nr. Southampton.

Rhododendron (discolor × lacteum) 'Repose' A.M. May 22, 1956. This is a desirable hybrid and one which the exhibitors state has not been affected by cold weather in their experience. The corolla is deep campanulate and coloured whitish-cream suffused with a faint greenish tinge and the throat spotted with limited greenish-crimson markings; the lobes are small and reflexed. About eighteen such flowers make up a large, open, flat-topped truss. Exhibited by Messrs. W. C. Slocock, Ltd., Goldsworth Nursery, Woking, Surrey.

Rhododendron ('Jalisco' × 'Vanessa') 'Serena' A.M. May 22, 1956. An outstanding hybrid with the most delicate of colourings in its flowers, resultant of the well-conceived crossing of *R.* 'Jalisco' ('Dido' × 'Lady Bessborough') and *R.* 'Vanessa' (*griersonianum* × 'Soulbut'). The single, loose, flat-topped truss exhibited was made up of seven flowers. Each of these measured 2¾ inches long by 4 inches across, were campanulate in shape and coloured a warm, bright shade of Carmine Rose (H.C.C. 621/2), in the base of the corolla Cherry (H.C.C. 722) and, on the outside, a pale, translucent shade of pink suffused with Cherry (H.C.C. 722/3). The leaves were 7 inches long by 2½ inches wide, dark olive green paling towards the edges, and the margins waved. Exhibited from the R.H.S. Gardens, Wisley, Ripley, Surrey.

ORCHIDS

Odontoglossum (Edwarcus g.) 'Lyoth Crystal' A.M. June 5, 1956. The specimen of this cultivar exhibited bore a graceful arched spike upon which were two ranks of flowers, individual blooms being 3½ inches by 3½ inches. The tepals are all markedly twisted and lacerated. The lateral tepals also have a sublate recurved apex. The basic colour is white, but each tepal is marked with rather small light purple spots. The labellum has a jagged yellow crest, revolute margin and is also deeply bifid at the apex. The parentage is *O.* 'Alorcus' × *O.* 'Prince Edward'. Exhibited by Messrs. Charlesworth & Co., Ltd., Haywards Heath, Sussex.

Odontoglossum (Pescalo g.) 'Stonehurst' F.C.C. June 19, 1956. This cultivar was obtained by crossing the species *O. nobile* with *O.* 'Alorcus'. Ten blooms were borne on a spike 21 inches high, individual flowers being 3½ by 3½ inches. The basic colour is a clear white, and upon this background is superimposed a number of light purple blotches. The labellum is marked with lemon-yellow towards the base. Exhibited by R. Strauss, Esq., Stonehurst, Ardingly, Sussex.

Odontoglossum (Pescalo g.) 'Lyoth Galaxy' F.C.C. July 3, 1956. This is the second cultivar of the Pescalo grex to obtain the

highest award. As in the previously awarded cultivar 'Stonehurst', a large spike bearing ten flowers was exhibited. The flowers themselves are slightly larger, 4 inches by 3½ inches. Again the basic colour is clear white, and superimposed upon it are light purple blotches sparingly distributed. The tepals are broad-obovate in outline, with undulate, irregularly incised margins. As is usual there is a yellow crest. Parentage *O.* 'Alorcus' × *O. nobile*. Exhibited by Messrs. Charlesworth & Co., Ltd., Haywards Heath, Sussex.

BOOK NOTES

"Photography in the Garden." By T. L. Gunn, F.R.P.S. 8vo. 108 pp. Illus. (W. H. & L. Collingridge Ltd., London.) 25s.

Many gardeners at the present day find pleasure in using a camera to record the successful results of their horticultural activities. Satisfactory photographs of plants and gardens are not, however, to be achieved by a hit-or-miss approach; and it is a common experience that even with carefully chosen apparatus and materials such photographs can be sadly lacking in tonal quality, composition and accuracy of perspective.

During his career as a professional photographer Mr. Gunn has worked in a great many gardens both large and small, and he is well qualified by long experience to advise on the constituents of a good garden photograph and the best way to obtain it.

The early chapters deal with types of camera and sensitive material. I could not more heartily endorse the author's recommendation of a medium-sized folding plate camera with focussing screen, firm tripod and panchromatic plates of moderate speed, used in conjunction with a photo-electric exposure meter. The important questions of composition, backgrounds and lighting next receive attention. The indoor portraiture of flowers by daylight or artificial illumination is also very fully discussed, and many very useful hints on arrangement and lighting, backgrounds and reflectors are to be found here.

There follow two most important chapters on the processing of the exposed film, and the preparation of the final positive print or slide. Here the illustrations showing the appearance of negatives by varied times of exposure and development are very informative.

It may seem surprising that only one short chapter is devoted to colour photography, but as the amateur is not likely to try to process his own colour work the author has not described how this is done. His notes on harmony and contrast usefully supplement the fairly full working instructions supplied by the makers of colour film.

N. K. GOULD

"Soil Sterilization." By W. J. C. Lawrence. 171 pp. Illus. (London: George Allen and Unwin Ltd., 1956.) 18s.

This book gives the most comprehensive account so far written on soil sterilization. Mr. Lawrence's books are always extremely practical yet based on a sensible and up-to-date assessment of the latest scientific work. The book will be useful and stimulating to all horticulturists, from the home gardener who likes to raise a few of his own plants to the commercial grower with a large area of glass. Perhaps the most interesting part of the book is the account of "balanced" steaming where the author shows how large improvements and economies can be made in the sterilization of glasshouse soils *in situ*. The basis of this approach is that the size of plot to be steamed at each operation should be matched exactly to the output from the boiler if waste is to be avoided and fuel used to the best effect. There is also much sound practical advice on other types of sterilizing, but the author rightly points out that "The sterilization of glasshouse soil is not an isolated event in glasshouse husbandry but must be considered in relation to general nursery management".

Sterilization of the soil is an important aspect of management, but the effects of good sterilization can soon be undone by slovenly cultural methods thereafter.

Horticulturists are indebted to Mr. Lawrence for interpreting science to practice in his sensible, readable books, and this latest volume is a worthy member of the series.

J. P. HUDSON

"Soil Physics." By L. D. Baver. Third Edition. 489 pp. Illus. (Chapman & Hall Ltd., 1956.) 62s. net.

This is a new edition of what has become one of the standard textbooks on soil science. Written essentially for the advanced student, it would be found more than difficult to read by anyone not well versed in physics and chemistry. Few subjects in agricultural science are more involved than that of the soil. Soil is an immensely complex biophysical system in which the conditions are perpetually changing owing to changes in the temperature, the water supply and the biological and chemical processes carried on within it. It is this complexity which has led to the many misconceptions concerning the properties of soils and if those laymen who speak most loudly and dogmatically about the management of soils could bring themselves to study and understand such objective textbooks as Dr. Baver's they would find it a humbling experience.

The book is an excellent example of the well-known co-operation between the firms of John Wiley & Sons of New York and Chapman & Hall of London, making available important works by simultaneous publication in the two countries. Though written by an American, the research work reviewed is culled from international sources and it will continue to be the standard text for the serious student.

R. H. STOUGHTON

"We Made a Garden." By Margery Fish. Demy 8vo. 120 pp. Illus. (Collingridge.) 18s.

This is a personal book about the garden at East Lambrook Manor in Somerset made by Mrs. Fish and her husband. It is a small garden, no more than an acre, but in it Mrs. Fish has managed to find space for a large number of interesting plants. It is only a short book and many of the glimpses given of her garden could well have been expanded. It is, however, the book of a clever gardener with an eye for plants of character and as such should be helpful both to those making a garden and to those planning the upkeep of an established one with a minimum of labour but which will have some interest all the year round.

PATRICK M. SYNGE

"Cactus and other Succulent Plants.' By H. M. Roan. 91 pp. Illus. (Nicholas Kaye Ltd., 1956.) 16s.

This book first appeared in 1948 when it was published by the newly organized National Cactus and Succulent Society; it has proved so popular that several editions and reprintings have been made and now a 4th edition has been produced by Nicholas Kaye Ltd., who have reset the text in a very pleasant type. The number of half-tone illustrations has been increased from the original 99 to 142 and the cloth cover which superseded the original decorated boards, now bears an attractive coloured dust jacket. Besides these considerable improvements a useful chapter on Grafting has been contributed by Mr. S. H. Scott, the present Honorary Secretary of the Society, who has also been responsible for seeing the new edition through the press. This book forms an excellent introduction for the beginner and contains information of use also to more experienced growers.

VERA HIGGINS

"What Wood is That? A Guide to the Identification of Home-Grown and Imported Timbers with Forty actual Timber Samples." By Dr. Alfred Schwankl, translated and edited by H. L. Edlin. 164 pp. 125 text figs. (Thames and Hudson Ltd., London.) 25s.

The conventional method of identifying timbers by their structural features involves a working knowledge of wood anatomy and of the terminology used in describing pores or vessels, rays, parenchyma, etc., not to mention the technique of preparing a specimen and examining it under a hand lens or compound microscope. It is not really difficult to master the elements of wood anatomy but many people who are interested in timber seem to think that the technical difficulties of identification are too much for them. It is for this class of reader that this book is intended.

The essence of Dr. Schwankl's method is the classification of timbers according to a number of fairly obvious distinctive features, including colour, the visibility of the annual rings and pores on cross section, the grain of longitudinal surfaces, hardness, specific gravity and smell, also the character of the bark and the shape of the leaf in case these are available for examination. Forty timbers are described in this way with examples of how to identify them. Instead of coloured plates, which are never really satisfactory for showing the grain and texture of wood, the book includes forty actual specimens in the form of veneers, about 3 by 1¼ inches, mounted on card. These specimens are an attractive feature. Almost without exception they are well prepared and selected to show the characteristics of each timber. Considering the large number of timbers in use today forty is all too few to be representative and some of the species included can hardly be considered common timbers. There is the further difficulty that the appearance of some timbers varies considerably according to the way they are cut. In the case of one timber only—elm—two specimens are included to show the radial as well as the tangential surface.

This book reminds the reviewer of Gaston Bonnier's *Name this Flower*, in which the author expounded what he called The Simple Way of finding out the name of a plant without any knowledge of botany. Some botanists are inclined to scoff at Bonnier; nevertheless, his book has probably given pleasure to many lovers of wild flowers. Dr. Schwankl's book, ably translated and edited by Mr. Edlin, may similarly provide interest and enjoyment for the amateur of wood.

B. J. RENDLE

"Wild and Garden Herbs." By Kay N. Saneki. 69 pp. Illus. (W. H. and L. Collingridge Ltd., London, 1956.) 15*s*.

This book, unlike many on the subject, is one of practical facts and ideas about a hundred herbs and is not merely a collection of legends. The first chapter serves as a historical introduction, starting in the Middle Ages, when herbs were of prime importance. After briefly covering their relatively simple propagation and cultivation Mrs. Saneki goes on to give some ideas on the planning and design of herb gardens. For those wishing to dry herbs, on a small or large scale, there is much information on harvesting, drying and storing. Latin and popular names of each herb together with uses and some recipes are given in an alphabetical list. Illustrations consist of nearly sixty useful pen sketches and a coloured frontispiece. This book should be of interest to many readers with or without a garden.

"Packing and Storing Fruit on the Farm." By R. R. W. Folley. (Wye College, University of London, 1955.) 7*s*. 6*d*.

Commercial growers of apples and pears are becoming increasingly aware that efficient packing and storing are investments, just as their orchards are. Many growers, however, are unaware of the precise cost of packing and storing and the various methods of each process. In this detailed and thorough study, facts and figures from fourteen growers who own or manage a packing shed and store have been considered. Growers wishing to increase returns from orchards by installing modern packing and storage equipment would be well advised to study this report.

"Drawings of British Plants." By Stella Ross-Craig. Part IX. Rosaceae (2). (Bell.) 1*s*. 6*d*.

The publication of this second part on Rosaceae completes the third volume of this great work. It contains thirty-nine plates and includes plates of *Alchemilla*, *Aphanes*, *Agrimonia*, *Poterium*, *Sanguisorba*, *Rosa*, *Pyrus*, *Sorbus*, *Malus*, *Mespilus*, *Cotoneaster* and *Crataegus*. They are drawn with all the skill and care which we already associate with this series.

ORDERS FOR BOOKS

The Society does not sell any publications other than its own. Orders for books reviewed should therefore be sent direct to the booksellers and not to the offices of the Society.

The contents of this volume are copyright. For permission to reproduce any of the articles application should be made to the Council.

DO YOU SWOE

In other words, do you use the new garden implement which represents the greatest advance in soil cultivation since the hoe? The Wilkinson Sword SWOE, with its hollow-forged, rust-resisting cutting blade ground on three edges, enables you to create a fine tilth so essential for the maintenance of healthy plant life. In this way you control weeds at the germination stage.

The SWOE enables you to work close to plants without interfering with nature's own soil structure and the network of plant roots. This fine instrument is specially designed for easy and comfortable handling—indeed, SWOEing is a pleasure, not a labour.

SOLD EVERYWHERE
PRICE 40/-

WILKINSON SWORD

Illustrated leaflet S.28 of full range of garden tools available on application.

WILKINSON SWORD LIMITED, LONDON, W.4

Laxton's

THE BREEDERS
FOR NEARLY 100 YEARS

You can confidently order one tree for your garden or many for an orchard if you write to **LAXTON'S.** You can rely on trees sent direct from our famous nurseries — and on individual attention, however small your order. For nearly 100 years the new and improved varieties we have developed have been building up our exceptional reputation for outstanding quality, and we grow, of course, all ordinary popular varieties. **LAXTON'S** stocks have won over 250 awards . . . let them ensure success for you.

for Fruit Trees and Roses

YOUR 1956 MANUAL

Laxton's Illustrated Manual contains full descriptions of all the outstanding Laxton varieties and other leading sorts.

Write for it NOW!

LAXTON BROS. BEDFORD LTD.
63H High Street, Bedford
FRUIT TREE RAISERS,
NURSERYMEN & SEEDSMEN

For efficient control of insect pests in greenhouses, use

MURFUME SMOKES

* AZOBENZENE * BHC * DDT
* DDT–LINDANE * LINDANE

These smokes will control a wide range of greenhouse insect pests. Available in canisters, cones and pellets.

NEW! MURPHY

GREENHOUSE AEROSOL

* CLEAN AND SIMPLE TO USE
* TIME SAVING
* INEXPENSIVE

One canister will fumigate a greenhouse of 500 cubic feet 24 times. Controls Aphids, Thrips, Springtails, White Fly, Leaf Miners, Red Spider. *Price 8/6 each.*

THE MURPHY CHEMICAL COMPANY LIMITED
WHEATHAMPSTEAD, HERTS.

G. S. THOMAS, F.L.S.

The Old Shrub Roses

'The name of Graham Thomas is known to and respected by practically all gardeners who grow the old shrub roses . . . Consequently this book will be welcome wherever they are grown', wrote the *Journal of the Royal Horticultural Society* of this study of the history, cultivation and care of these lovely flowers.

Foreword by the Hon. V. Sackville-West

With 8 colour and many monochrome plates

32s. 6d. net

Phoenix — *From all Booksbops*

Published by Phoenix House Ltd., 38 William IV Street, London, W.C.2

FIRST QUALITY

ROSES

GROWN BY

TOYNBEE'S NURSERIES

BARNHAM, BOGNOR REGIS, SUSSEX

Tel. Eastergate 412/3

Place your order early

Free on request

CATALOGUE of ROSES

Bush H.T.s, Floribundas (Polyanthas), Standard Roses, Climbing and Rambling Roses, Shrub Roses.

Send 1/– for 116-page Illustrated General Catalogue of Flowering Trees and Shrubs, Herbaceous and Rock plants, Fruit Trees, Conifers and Hedging. (Charge will be credited on receipt of your first order.)

WALTER C. SLOCOCK, Ltd.

FOR OVER 160 YEARS

RHODODENDRON SPECIALISTS

AND PRODUCERS OF FIRST-QUALITY

ORNAMENTAL TREES AND SHRUBS, FRUITS, ROSES, Etc.

Please write for copies of our

CATALOGUES

"RHODOS and AZALEAS" and/or "TREES and SHRUBS"

(Post Free)

GOLDSWORTH NURSERY
WOKING ∴ SURREY

C. H. WHITEHOUSE, LTD.

Phone: FRANT 247

Buckhurst Works, FRANT, Sussex

'EXTENDIBLE UNIT'

ALL-CEDAR

GREENHOUSE

Constructed of Western Red Cedar, In complete sections for easy erection.

Size 8 ft. wide by any multiple of 6 ft. long.

May be extended at any time by units of 6 ft. or 12 ft. long.

Painting Unnecessary - Low in Upkeep Costs

NEW FULLY ILLUSTRATED CATALOGUE FREE ON APPLICATION

All you want to know—
When you want to know it

Popular GARDENING

THE GARDENER'S WEEKLY

THE BEST AND MOST UP-TO-DATE GUIDE

Edited by GORDON FORSYTH

4½D

EVERY THURSDAY

Blackmoor Estate Ltd.

(Lord Wolmer's Nursery)

FRUIT TREES

These trees have been known for many years for their outstanding quality and reliability and are all grown on excellent root-stocks.

APPLES PEARS

PLUMS PEACHES

CHERRIES NECTARINES

SOFT FRUITS

Also BEECHES and LIMES for Hedging

Catalogue with much useful information FREE on application to:—

FRUIT NURSERY DEPT. (J.R.H.),
BLACKMOOR ESTATE, LTD.
LISS, HANTS

Tel.: Blackmoor (Hants) 276/7

"Autumn Sweeping"

The old friend "besom" is real hard work and is still being used in many parts where they have not seen or heard of Cooks 322 Improved Double Row Leaf and Lawn Broom.

All sizes are now fitted with spring steel support stays and with a wider brushing surface for getting into corners.

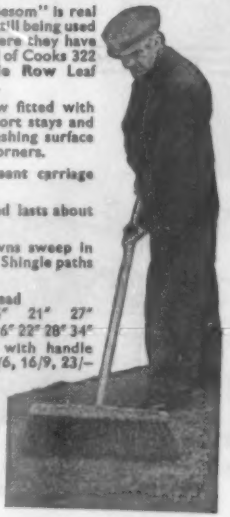
A single broom sent carriage paid (U.K.).

It's light to use and lasts about three years.

For leaves and lawns sweep in the ordinary way. Shingle paths draw.

Width of brush-head
9" 15" 21" 27"
Brushing surface 16" 22" 28" 34"
Price, complete with handle and stay, 8/9, 11/6, 16/9, 23/-

9" for small gardens.
15" for ladies and gents.
21" for large gardens.
27" for estates.



COOKS (*Norwich*) BRUSHES
LIMITED
Makers of Brushes since 1814
DAVEY PLACE, NORWICH, NORFOLK

JUSTIN BROOKE LTD.

WICKHAMBROOK, Nr. NEWMARKET, SUFFOLK

We invite you to visit our nurseries and fruiting orchards at any time, including Sundays—preferably by appointment.

We have a large acreage of nursery stock, including Peaches, Nectarines, Apricots, Cherries, Apples, Pears, Plums and Figs.

In our fruiting orchards you can see the results obtained by planting similar stocks of all these fruits; and you can see the results at various stages of growth.

PEACHES ON PEACH STOCK

Telephones:

In office hours—Wickhambrook 200 Out of office hours—Wickhambrook 304

'ECLIPSE' PEAT
is
SEDGE PEAT

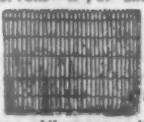
Write for our special booklet on how to use the different grades we supply—particularly for heavy clay or sandy soil.

THE ECLIPSE PEAT CO., LTD.
ASHCOTT, Nr. Bridgwater, SOMERSET

"RIVIERA" SCREENING

Is split ½" dia. bamboo bound nearly close by galv'd wires in 10-yd. rolls—49", 59" and 69" wide.

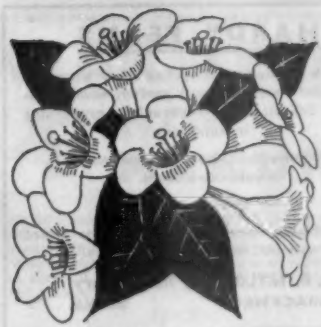
IDEAL FOR INEXPENSIVE GREENHOUSE BLINDS, ETC.



SIGHT PROOFING OPEN WIRE OR IRON FENCES, ETC.

Fencing and Gates. All types supplied and fixed. Oak Pale Panels, Wovenwood, Hazel and Osier Hurdles, Chestnut Fencing, Teak Garden Furniture

GERALD GILMER LTD.
TEL. - 1640/1 LEWES EST. 1922
And at BISHOP'S WALTHAM. Tel.: 271



Ornamental

Trees and Shrubs

are the backbone of the trouble-free labour-saving garden. Year after year the well balanced shrub border provides beauty of form and colour at all seasons without the expense of replacement or upkeep.

The seventy-two informative pages of our new catalogue will tell you a great deal about all the varieties worth growing, including the average height and spread ten years after planting. Another valuable feature is the clear indication of the soil preference of every plant, showing whether it hates lime, prefers it, or just doesn't care.

Altogether, a volume worthy of a place on the shelves of your gardening library. May we send you a copy?

Stewarts
NURSERIES

FERNDOWN. EST. 1742. DORSET

P.S.—The catalogue is free, but a stamp would be appreciated.

THE

CRITTALL

"CADET" RUSTLESS GREENHOUSE

Easily erected, the "Cadet" is now available in four sizes. Made from heavy rolled steel sections electrically welded and completely rust-proofed by Hot-dip Galvanizing.
Complete with glass, putty, glazing clips and foundation lugs.
Free delivery: England and Wales.

DEFERRED TERMS AVAILABLE

Type No.	Length	Width	Height to ridge	Price
1A	8' 3"	6' 3"	7' 6"	25 gns
1B	10' 3"	6' 3"	7' 6"	29 gns
2A	8' 3"	8' 3"	8' 2"	31 gns
2B	10' 3"	8' 3"	8' 2"	35 gns

Made by the Metal Window Engineers with the International reputation for high quality of workmanship and materials. Can be seen at leading London Stores and at Agents throughout the country.

Send for full details to:—

THE CRITTALL MANUFACTURING COMPANY LIMITED
Horticultural Department C, Braintree, Essex

TARRY'S KETTERING LOAM

Finest top spit taken from our own virgin fields. Also sterilised soil and compost to the John Innes Formula. Quotations by return for delivery in 7/8 ton lorry loads or by rail in small quantities.

V. TARRY

PYTCHLEY LODGE, KETTERING

Telephone: KETTERING 4061

HARDY FERNS

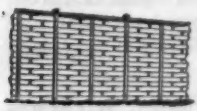
A wealth of rare and interesting foliage plants for the shaded border and rock garden; equally suitable for difficult town gardens and for naturalising in woodlands.

Also Osmunda, Onoclea and other notable waterside subjects.

Catalogue on request

Nine different Ferns, species and choice named varieties, for £1, post free, c.w.o.

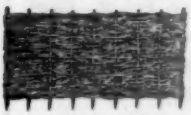
J. R. TAYLOR, Lily Hill Nursery,
BRACKNELL BERKS.



DURABLE INTERWOVEN FENCING

2ft. high 14/6 4ft. high 24/6
3ft. „ 20/6 5ft. „ 32/-
6ft. high 36/-

Strong 6ft. long panels. Creosoted



TOP GRADE WATTLE HURDLES

3ft. high 13/11 5ft. high 23/9
4ft. „ 17/6 6ft. „ 27/9

Best closely woven 6 ft. long Hazel. Carr. Paid 8tn. 200 miles.

PROMPT DESPATCH

C.W.O. or "EASY TERMS." SUPERLAP Interwoven CLOSE BOARD & CHESTNUT FENCING, GATES, GARDEN STONE, TUBS, LADDERS, GARAGES & GARDEN SHEDS.

Write for free lists. Special dozen rate.

VALE COUNTRY PRODUCTS
(Dept. R.), Wantage, BERKS.

ALLWOOD'S CARNATION FLOWERS

are the ideal gift for all occasions.
Selected colours or unique mixed shades.

From:

1 gn. to 5 gns. per box

Write for Catalogue

Allwood Bros LTD
Carnation Specialists

Cut Flower Dept.
HAYWARDS HEATH SUSSEX
Wivelsfield 232

THE MECHANIZED GARDEN CENTRE

ALLEN LAWN SWEEPERS

Ex stock, carriage paid.

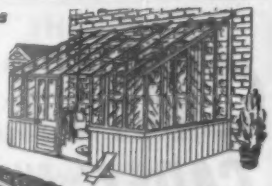
18-inch	11.17.6
Detachable insert bag ...	1.17.6
24-inch	13.10.0
Detachable insert bag ...	2. 0.0
Windshield	19.6

BETTER GET IT AT GODFREYS

110 Marylebone Lane, London, W.1 (Welbeck 6842), and Brenchley, Kent

Conservatories

Garden Dens..



Garages, greenhouses, loose-boxes and garden buildings of all descriptions.

Please send for illustrated catalogue

ALPHA WOODCRAFT LTD.,
Dept. 24, Star Road, Hillingdon Heath, Uxbridge, Middx. Tel. HAYes 0657

HAUCK FLAME-GUNS

are the first choice of every discriminating buyer. More Hauck Flame-Guns are in use than all other makes combined.

Send in your order now and get those jobs cleared up without delay.

Prompt deliveries.

Other models available.

VULCAN JUNIOR MODEL

Write for catalogue to Sole Distributors Phone

GEFARE LIMITED WISBECH 1577

MECONOPSIS BAILEYI

The Glorious Blue Poppy

Two-year-old plants, 40/- per dozen
One-year-old plants, 27/- per dozen

Three or six at dozen rate. Add 2/- in the £ for packing and postage. Send 2d. stamp for Catalogue of Primulas, Alpine and Herbaceous Plants.

H. G. & P. M. LYALL, Bricket Wood, Watford, Herts. Garston (Herts.) 2098

WAKELEY'S
(Registered Trade Mark)

4 OLD HOP MANURE

Stable manure is scarce, but you'll find Wakeley's Four-Fold Hop Manure a perfect substitute—Humus, Nitrogen, Phosphates and Potash—everything the soil needs from seed-time to harvest—to enrich it, and stimulate and sustain plant life and growth.

PRICES:

Small Bag 8/6, Medium Bag 12/9, Large Bag 21/-, 10 large bags 205/-, 20 Large Bags 400/-

Prices subject to alteration without notice

FROM ALL THE BEST NURSERYMEN AND SEEDSMEN

or carriage paid England and Wales (Scotland 1/6 Large Bag; 1/- Medium Bag; 9d. Small Bag extra). If any difficulty, write to address below.

Write for new season's price list. Booklet of cultural instructions also sent if required.

Our Catalogue of Bulbs, Plants, Trees, Shrubs, etc., is also now ready, free on application.

WAKELEY BROS. & CO. Ltd.
235 Blackfriars Road, London, S.E.1

WALLACE & BARR'S BULBS

DAFFODIL MIXTURES

No finer mixtures can be found than those specially made up by us.

MIXED OF MANY SORTS
A fine mixture of all sections for large plantings and naturalising.
Per 1,000, 335/-; per 100, 37/6

TRUMPET DAFFODILS, MIXED
A splendid mixture of large trumpet varieties. Per 1,000, 450/-; per 100, 47/6

RED-CUPPED NARCISSI, MIXED
A very striking mixture, composed of red-cupped varieties only, from the large-cupped and small-cupped section, very showy.
Per 1,000, 400/-; 100, 42/-; doz. 6/-

Orders 50/- and over carriage paid

Our General Bulb Catalogue contains a full list of Daffodils, Tulips, etc., and of many less well-known subjects for Garden, Rockery and Indoor Culture.

POST FREE ON REQUEST

WALLACE & BARR
THE OLD GARDENS
TUNBRIDGE WELLS, KENT

It Is Dangerous to Stoop
Cooks 710 Supra Trolley Kneeler
Gives added pleasure to Gardening

Registered Design 873960

(1) Slot-in-tray for "Moler" trowel or hand-fork, to assist gardener to rise.
(2) Rubber kneeling mat, 14" × 7" × ⅜".
(3) Cast aluminium frame (6 lb.), overall height 4".
(4) Four hardwood rollers.

Move from plant to plant without rising or stooping.

An Ideal Christmas Present

Post paid (U.K.) 39/6. Overseas 3/6 extra

Christmas suggestions for the keen gardener illustrated in our 1956 Horticultural List. Post free.

COOKS (Norwich) BRUSHES LIMITED
Makers of Brushes since 1814
DAVEY PLACE, NORWICH, NORFOLK

OAKWORTH
greenhouses for every type of garden

All Guaranteed

Z Series. 5' 2" Wide
For the Smaller Garden From £19.10.0

D. Series. 8' 3" Wide. For the Average Garden. From £33.10.0

Lean to's. 4' 1" to 9' 0" Wide. As a Greenhouse or Sun Porch. From £20.5.6

SEASONED OAK and scientifically prefabricated construction ensure—

a lifetime of service, tremendous strength and maximum light

All models extendible and over 50 different sizes to select from. Free delivery, erection service if required, deferred terms.

FREE CATALOGUE FROM—
CASTOR LTD. (Dept. JRH), WELLINGTON, SALOP

BOTTLE BRUSHES

These beautiful Australian shrubs are easily grown in the cool greenhouse, succeeding outside only in the milder counties.

CALLISTEMONS

Citrinus. Bright red
Linearis. Crimson tinged green
Speciosus. Deep Scarlet

MELALEUCAS

Fulgens. Vivid red
Hypericifolia. Rich red, vigorous

All 7/6 each, packing and carriage extra

THE SANDHURST NURSERIES
SANDHURST · CAMBERLEY · SURREY

KETTERING LOAM

As supplied for over 30 years to the Leading Horticulturists. Hand-Dug Yellow Fibrous, from our own virgin fields. Also Bedfordshire Silver Sand and Noted Nottingham Marl. Quotations for any quantity, delivered by Rail or Road Transport to your door.

KETTERING FUEL CO. LTD.
28a STATION RD., KETTERING, NORTHANTS
Telephone: 3057

'SERPENT'

INDELIBLE (LEAD)
LABELS
LAST 100 YEARS
NEAT, LEGIBLE, SELF-AFFIXING ADAPTABLE, COMPLETELY RELIABLE

No. 1 LABEL MACHINE

Printed with *any* (different) names, 4/3 dozen; 34/- 100. Label-printing Machines from £3 19s. 6d. Send for lists and FREE SAMPLE (*any* name). Complete Label-machine Outfits, from £5 5s. 0d., postage 3/-, make IDEAL GIFTS

SERPENT LABEL WORKS
ROCKBEER, EXETER

WATTLE FENCING

ECONOMICAL SCREEN and WIND SHELTER

CLOSE WOVEN

WE SUGGEST—BUY THE BEST

	6' × 3'	12/11	Stakes	1/-
	6' × 4'	17/2	"	1/3
Reduction for Dozen lots.	6' × 5'	22/6	"	1/6
	6' × 6'	27/11	"	1/9

Delivery 3/4 weeks. Carriage paid 200 miles

NU-LOCK ● OSIER ● CLEFT CHESTNUT, etc.
Fence your garden the 'RURAL' way

DAVIDS RURAL INDUSTRIES LIMITED
128(R) EBURY STREET, LONDON, S.W.1
(Offices and Showroom)

MASKELL'S—
THE PRIZEWINNER'S CHOICE

WE supply ALL fertilisers, manures and insecticides, including **"Super" Hop**, the ideal manure for ALL soils and crops; economical, easy and clean to use, weed-free ("Large" Sack, 18/6 for 1,000 sq. ft.; "Double Large" 31/6); also all Horticultural aids: Naphtho Lime, Garden Limes, J.I. Composts, Peats, Bone Meal, Loams, Sands, Sulphate of Potash, Nitrate of Soda, Lawn Dressings, Tomato, Chrysanthemum and other special fertilisers, Fruit Tree and all other washes, etc., delivered any address in U.K. at competitive prices. **FREE ON REQUEST** Gardener's Handbook and Price List of 80 products, Phone Maryland 2728, or

Send to **MASKELLS (1900)**
38 DIRLETON RD. WORKS LONDON E.15

DEVONSHIRE VIOLETS
All fine transplanted plants, showing bud.

	Per doz.
Princess of Wales. Deep blue	12/-
Selected for frames	15/-
Bournemouth Gem. Very large purple, long stems, extra fine for frames ...	9/-
Czar. Free flowering, purple blue	9/-
Cour d'Alsace. Pink. Nice for rock garden	12/-
Duchesse de Parma. Double mauve ...	15/-
All nicely scented.	
Lily of the Valley. For outdoor, per 100	20/-
For forcing " "	40/-
Wallflowers (4 vars.), **Sweet Williams,** Myosotis and Pansies	15/6 100
Primula Denticulata. Flowering size	12/- doz.

All carriage paid for cash with order. Trade supplied

ALFRED RENDLE, F.R.H.S., Violet Grower,
Shaugh Lodge, Paignton, S. Devon. Phone 57742

ORCHIDS

BUY YOUR ORCHIDS AT A REASONABLE PRICE FROM THE ACTUAL PRODUCERS

LARGE STOCKS of CYMBIDIUMS, CYPRIPEDIUMS, CATTLEYAS, etc., ODONTOGLOSSUMS and CURIOSITIES

Our Illustrated Booklet "The Simplicity of Orchid Growing" will be sent FREE ON REQUEST.

MANSELL & HATCHER, LTD.
Dept. R.H., CraggWood Nurseries, RAWDON, LEEDS, Yorkshire.

COPPER HOT WATER RADIATORS

For Greenhouses etc. **Extreme length 29½"**
Height 21½" 3" Pipes.

Fitted solid copper, ½ gall. oil reservoirs. With single 1½" burner, £4 18s. Twin 1½" or twin 1" burners 1/6 extra Catalogue Free.

Carriage Paid in British or Channel Isles. Extra 18/- Canada; 21/9 U.S.A.; 15/- Australia; 17/- New Zealand; 19/- Kenya.

P. J. BRYANT, Forest Road, Fishponds, **BRISTOL**

By appointment to H.M. Queen Elizabeth II Garden Contractors and Horticultural Builders William Wood & Son Ltd.

By appointment to H.M. Queen Elizabeth the Queen Mother Garden Contractors and Horticultural Builders William Wood & Son Ltd.

Greenhouses

Span-roof and lean-to greenhouses in teak and other matured hardwoods. Dutch light houses and garden frames. Heating apparatus, Garden Houses and Shelters. Write for a copy of our illustrated catalogue, with special section describing our all-electric greenhouse.

William Wood and Son Limited

Taplow • Bucks

Telephone: Burnham, Bucks 1155 (3 *lines*)

Telegrams: Gardening Taplow

FEATURES OF EVOLUTION IN THE FLOWERING PLANTS

RONALD GOOD M.A. Sc.D.

Until now ideas about evolution have been derived almost wholly from a study of the Animal Kingdom, especially of certain parts of it, and Professor Good's new study of the Flowering Plants is directed to showing how difficult it is to apply some of the more familiar and popular evolutionary conceptions to this great section of the Plant Kingdom. The result is a challenging book on a subject which has invited, and received, the warmest discussion since the first appearance of Darwin's ORIGIN OF SPECIES now almost a hundred years ago. Professor Good reminds us, not only of the importance of the evidence obtainable from a knowledge of these plants by grace of which animal life on land exists, but also of the lack of balance in our approach to evolutionary problems which is the consequence of their neglect. *The book is also a comprehensive illustrated account of the Flowering Plants.*

30s. net.

LONGMANS

AROMATICS

for your garden, not your car! They will surely give an added attraction of scent as well as colour to your plot. Have you tried these, for instance?—

ROSEMARY AND MYRTLE
ARTEMISIA AND SANTOLINA
LEMON VERBENA AND RUE
LAVENDER AND CURRY
CARYOPTERIS AND HYSSOP
CISTUS IN VARIETY

Burkwood & Skipwith Ltd.
The Shrub Specialists
Park Road Nurseries, Kingston, Surrey
Telephone: KIN 0296

SMAIL'S GARDEN SHOP

Bulbs for Garden or Indoor Culture
Climbing, Alpine and Hardy Plants
Flowering and Evergreen Shrubs
Fertilisers, Insecticides
Sankey's Garden Pots
John Innes
Composts

W. SMAIL
44/46 Palmer Street, Westminster, S.W.1
ABBey 4427
One minute from St. James's Park Station
Five minutes from R.H.S. Hall

ROSES, FRUIT TREES AND FLOWERING SHRUBS

Grown by specialists—packed by craftsmen. New catalogue of our hardy Norfolk-grown stock sent promptly on request.

A. REEVES & CO.
OLD CATTON, NORWICH

"SHAMROCK" BRAND
IRISH MOSS PEAT

Finest quality only. Sterile, weed and pest free. Genuine Sphagnum Moss origin with an ideal granulation and highest moisture absorption rate.

Full details-leaflet and prices from

IRISH PEAT MOSS (SALES)
59 Park Street, Bristol, 1

The Best House in the West
for
CACTI & SUCCULENTS

UPLANDS NURSERY
(G. G. FUGE, F.R.H.S.)
BLACK HORSE LANE,
DOWNEND, BRISTOL
Telephone 53675

The most exclusive selection of rare Cacti and Succulents obtainable.
Inspection invited
Complete Nursery List available on request. PRICE 4d.

RHODODENDRON

We grow over 70 varieties of Hybrid Rhododendrons. Leading varieties such as Britannia from 1½ to 2 ft. high 19/- each, others such as Pink Pearl from 1½ to 2 ft. 18/- each. For other sizes see catalogue.

AZALEA

Many varieties of Ghent, Mollis, Mollis x Sinensis and Mollis Seedling Azaleas are described in our Shrub Catalogue, sent on request. Other catalogues: Roses, Herbaceous and Alpine, Bulbs, and Seeds.

SPECIALISTS
ARTHUR CHARLTON & SONS LTD.

HEAD OFFICE:
Summervale Nurseries,
Eridge Road,
Tunbridge Wells, Kent.

And Nurseries at:
Rotherfield, Sussex, and
Broadwater Forest,
near Tunbridge Wells.

KNIGHT'S NURSERIES LTD.

HAILSHAM, SUSSEX. TEL. 454

New Raspberry
"GOLDEN EVEREST"

Very prolific, a strong grower bearing large quantities of golden fruit of delicious flavour during July and August.

Strong Canes 18/- doz., 120/- 100
Carriage paid.

Also our well-known autumn-fruiting Raspberry "The Hailsham"
8/6 doz., 50/- 100

Please send for our full list of fruit trees and bushes

We offer TREES and SHRUBS, ROSES, FRUIT TREES, HARDY PLANTS in QUALITY and VARIETY.

OUR NURSERIES are in elevated and exposed positions, thus ensuring only the hardiest and sturdiest possible trees and plants. We welcome you to inspect our stock or will gladly forward our catalogues free on request.

ST. BRIDGET NURSERIES, EXETER

Snowdrops and Snowflakes

A Study of the Genera Galanthus and Leucojum

BY

F. C. STERN, O.B.E., M.C., F.L.S., V.M.H.

With two illustrations in colour by E. A. Bowles and one in colour and line drawings by Margaret Stones

This study was started in collaboration with the late Mr. E. A. Bowles, who has contributed a chapter on Garden Varieties of Snowdrops. Species and varieties of Galanthus, which will flower in the open ground from September to April, are described in this book as well as species of Leucojum. Special attention has been paid to the geographical distribution and cytology of both genera.

Recently published Price 25/-

Postage and packing 1/9 Postage and packing overseas 2/3

Daffodil and Tulip Year Book, 1957

This issue is dedicated to Mr. Guy Wilson, V.M.H., a figure well-known to all Daffodil breeders and exhibitors. Mr. Wilson also contributes to the book an account of his recent tour to the U.S.A. as well as his usual delightful description of the Daffodil season and an account of a visit to Holland early in the season.

Tulips are represented by two articles of unusual interest. Mr. D. van Konynenburg writes an account of the great growth of the bulb industry in Lincolnshire, while Miss Julia Clements discusses the use of tulips in floral arrangements and illustrates this by photographs of her own arrangements.

In addition there are articles on the raising of Daffodils and on Daffodil Shows throughout the world and many photographs of new flowers which have received Awards.

For publication during October Price 10/-

Postage and packing 1/-

Obtainable from the Secretary

THE ROYAL HORTICULTURAL SOCIETY

VINCENT SQUARE, S.W.1

MAGNOLIA SOULANGEANA.

Waterers

CATALOGUES for Autumn 1956

No. 1. TREES & SHRUBS

Including :—

RHODODENDRONS, AZALEAS, CAMELLIAS, MAGNOLIAS, FLOWERING CHERRIES & CRABS, HEDGING & CLIMBING PLANTS, SCREENING TREES, Etc.

No. 2. HERBACEOUS & ROCKERY PLANTS

Including :—

LUPINS, DELPHINIUMS, PHLOXES, IRISES, HEMEROCALLIS, MICHAELMAS DAISIES, etc. WATER & BOG PLANTS, CHRYSANTHEMUMS and a wide selection of ROCK GARDEN PLANTS

No. 3. ROSES & FRUIT TREES

Hybrid Teas and Floribundas,
Bushes, Standards and Climbers,
Shrub Roses, etc.
Apples, Pears, Plums, Cherries
In bush, standard and trained forms.

These three comprehensive catalogues detailing stock available for delivery this Autumn, are now ready and will gladly be sent (post free) on request.

John Waterer, Sons & Crisp, Ltd.,
THE FLORAL MILE,
TWYFORD, BERKS.

Shrub Nurseries - BAGSHOT, Surrey

Printed by Spottiswoode, Ballantyne & Co. Ltd., London and Colchester